Summary

EXECUTIVE SUMMARY

State Party
Spain

Region, Province, City
Galicia, A Coruña y A Coruña

Name of Property

Tower of Hercules

Geographical coordinates to the nearest second

The geometric centre of the Tower of Hercules is as follows:

Latitude North 43º 23' 13'' Longitude West 8º 24' 17''

Topographic height of basament is 57 m. above sea level.

The U.T.M. coordinates are:
X= 548.200 Y= 4.804.060 Axis = 29

Textual description of the boundary(ies) of the nominated property

Definition of the limits of the monument. Core zone:

RS: Start of the limit at point R, at the roundabout in the *Avenida de Navarra* with the statue of Breogán; the section starts at this point and coincides with the *Paseo de los Menhires* as far as Adormideras beach.

ST: Line starting at the *Paseo de los Menhires* at the height of Adormideras beach, running around the children's playground until crossing over the equidistant line 150 metres from the coast.

TU: Equidistant line 150 metres from the coast which includes the islands closest to the peninsula.

UV: Line running between *Punta das Eiras* and *Punta del Orzán* to the *Playa de las Lapas*.

VW: Straight line running from the *Playa de las Lapas* to the branch behind the five-pointed Menhir.

WR: Line coinciding with the road that joins this branch with the roundabout containing the statue of Breogán.

Definition of the buffer zone:

AB: The limits of the zone begin at point A, on the seafront promenade at the height of José García Vázquez street; this section is the line that crosses over the promenade and coincides with José García Vázquez Street in an easterly direction.

BC: Line coinciding with José García Vázquez Street until the point where it crosses Lagoas Street.

CD: Line coinciding with Lagoas Street until the point where it crosses Faro de Finisterre Street.

DE: Line coinciding with Faro de Finisterre Street until the point at which it starts.

EF: Line joining Faro de Finisterre Street with the Avenida de Hércules at nº148.

FG: Line coinciding with the Avenida de Hércules between numbers 123 and 115, until crossing the Ronda de Monte Alto.

Summary

GH: Line coinciding with the Ronda de Monte Alto between nº101 and nº30.

HI: Line coinciding with the section of the street from between numbers 32 and 30 of the Ronda de Monte Alto to Pedro Galán Calvete Street.

IJ: Line coinciding with Pedro Galán Calvete Street until crossing Mauricio Farto Panor Street.

JK: Line coinciding with Mauricio Farto Panor Street until crossing Hermanos de la Lejia Street.

KL: Line coinciding with Hermanos de la Lejia Street, continuing until crossing the Seafront Promenade.

LN: Line coinciding with the Seafront Promenade, running around the roundabout until the limits of the installations of the Club de Mar.

NO: Line coinciding with the limits of the Club de Mar, running around the outside of the installations, and continuing to the sea.

OP: Straight line connecting point O with the equidistant line 300 metres from the coast.

PQ: Equidistant line 300 metres from the coast, including the islands that surround the peninsula.

QA: Straight line connecting point A with the equidistant line 300 mt. from the coast

Core Zone:

The boundaries of the core zone are determined by an imaginary line which starts in the cove cala de la Torre and continues into the sea, including Punta Eiras, A Furna dos Touciños, A Galera, A Punta Robaleira, Punta Herminia, O Altar until reaching O Acoroado, and the rocks of 'Cow', 'Bull' and 'Bullock' which face the Tower from the sea. From this point, the line extends along the Cabal da Pradeira via the road named carretera de los Polvorines, passing through the Square presided by the statue of Breogán and descending along the track which goes down to the cove of the Tower, closing the outer limits of the Tower

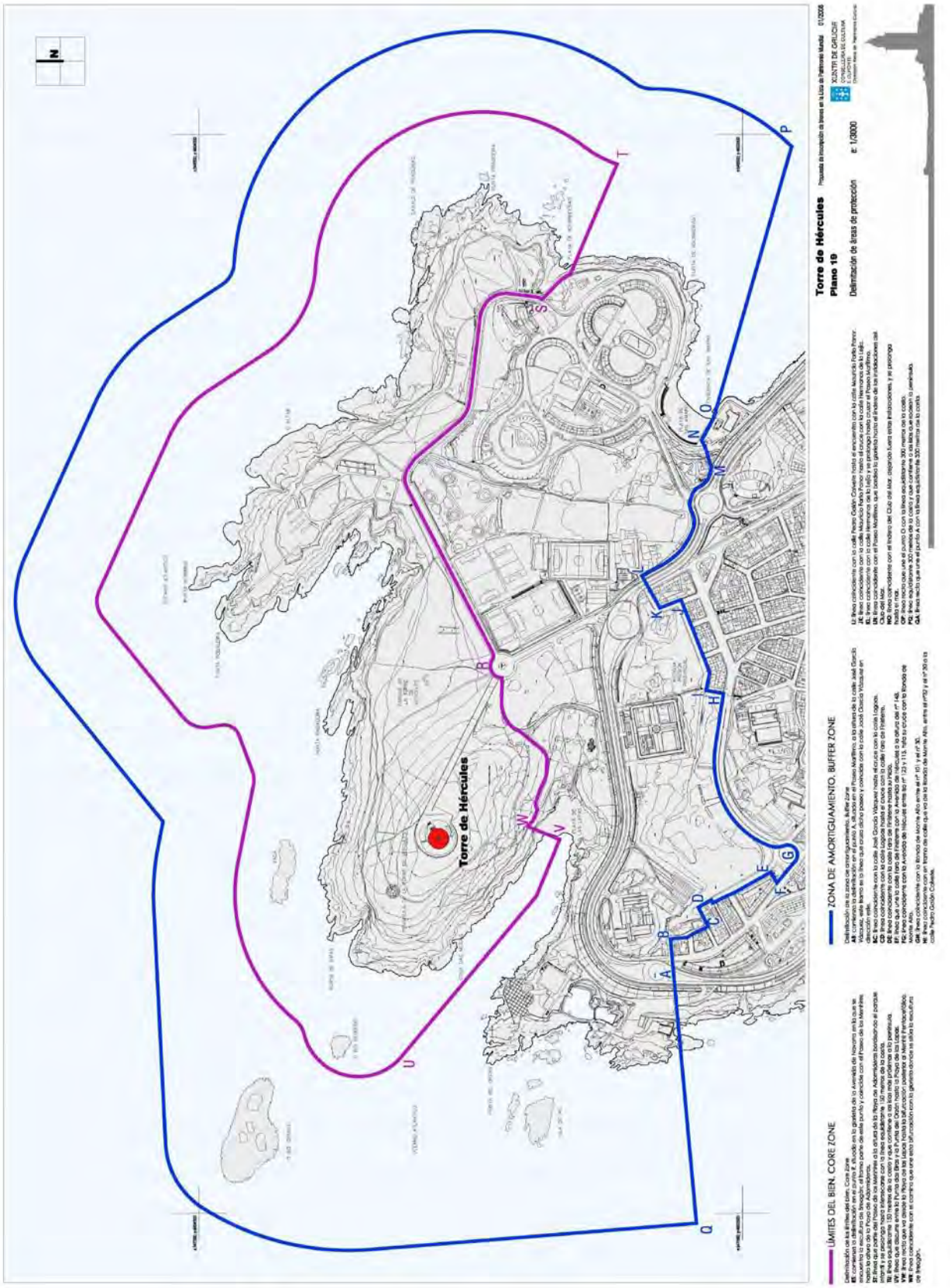
Buffer Zone:

The buffer zone has a wider scope of protection which may be defined by means of the following elements. Starting at the roundabout on the promenade in front of the Aquarium '*Casa de los Peces Acuarium Finisterrarum'*, the dividing line passes through the remains of the old shellfish bed and from there circles the coast, outlining a strip parallel to the boundaries of the core zone, circling *Punta de Orzán, Punta Eiras, Punta Robaleira, Punta Herminia*, it continues through *O Altar, O Acoroado, Punta Adormideras* and the *Playa de San Amaro* beach, which forms part of the buffer zone. The borderline of the buffer zone passes alongside the *Casa del Mar* (which lies outside the protection zone) to continue along the promenade and round the back of the *Ronda de Monte Alto.* After crossing this area of scrubland it comes out onto the promenade once more, thus completing the boundary of the buffer zone.

According to the General Urban Development Plan (1998; 2002) the buffer zone of the Tower of Hercules may be developed, but there are strict conditions governing the type of occupation permitted. All projects must be approved by the Galician Government Directorate General of Heritage and their decision is binding.

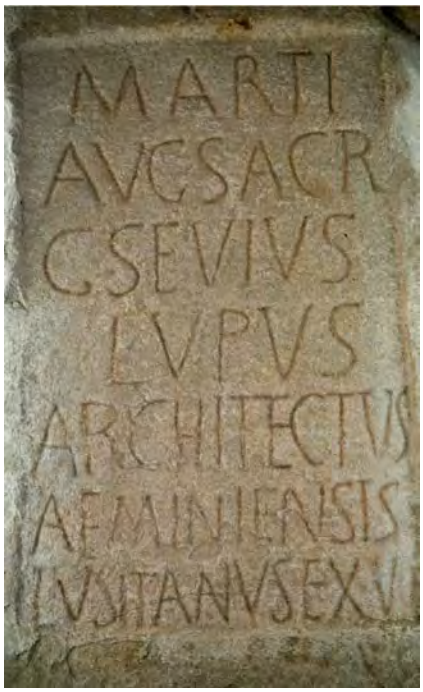
Summary

A4 size map of the nominated property, showwing boundaries and buffer zone



Summary

Justification Statement of Outstanding Universal Value



- The only Roman lighthouse still working today.

- One of the few Roman buildings that still perform the same function as when they were erected, that of serving as a maritime signal and a navigational aid.

- An 18th century model of restoration, which allowed for theRoman monument to be enhanced.

Criteria under which property is nominated (itemize criteria)

In accordance with paragraph 77 of the Operational Guidelines, we consider that the Tower of Hercules should be incorporated in the World Heritage List based on criteria III and IV, for the reasons that will be explained here

Criterion III: "*To bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared"1*

The Tower of Hercules constitutes an exceptional testimony to Roman civilisation by being the only preserved example of a lighthouse of the ancient world, which, despite the time that has passed since its construction, continues to fulfil its function as a maritime signal in the 21st century.

In this sense, the Tower of Hercules is the last link in a great chain which is formed by the most important lighthouses of the ancient world; for instance, to cite some emblematic examples, the Lighthouse of Alexandria and the Colossus of Rhodes, which were recognised by Antipatrus of Thessalonica as belonging to the Seven Wonders of the ancient world.

Unlike other examples, which have been lost (for example the Lighthouse of Ostia, that of Naples (Italy) or the afore-mentioned Lighthouse of Alexandria in Egypt), the Tower of Hercules is the only maritime signal which remains in operation of all the towers built by the Romans as navigational aids on both the Mediterranean and Atlantic coasts. The Tower of Hercules belongs to this second group of lighthouses which were erected on the shores of the ocean and were scattered from the mouth of the Guadalquivir River in Hispania to the English Channel, where the maritime traffic between Britannia and Gaul was concentrated.

These Atlantic lighthouses differ somewhat from the Mediterranean lighthouses, which were built in the entrances to quays or on the end of breakwaters, as was the case in Ostia (Italy) and Leptis Magna (Libya). In contrast, those that were erected on Atlantic shores were built on coastal cliffs in particularly dangerous areas in order to direct ships away from the shallows, which could threaten their wooden hulls.

[1] [1]"Directrices Prácticas para la aplicación de la *Convención del Patrimonio Mundial", en* Textos básicos de la Convención del Patrimonio Mundial de 1972, Paris, UNESCO, 2006 (6ª Edición), p. 54.

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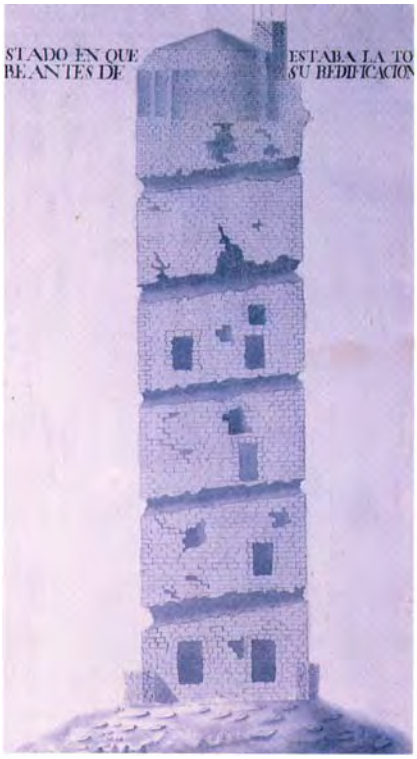
For all of these reasons it can be concluded that the testimonies which have been preserved of Roman lighthouses are few and far between. Therefore, that which is preserved as the interior nucleus of the Farum Brigantium, or the Tower of Hercules, is so exceptional that it gives this monument the virtue of being an item of extraordinary hereditary value, as both a work of reference of Roman engineering and as a unique testament by way of which we can learn more of the navigational techniques, signalling systems and maritime routes used in the ancient world.

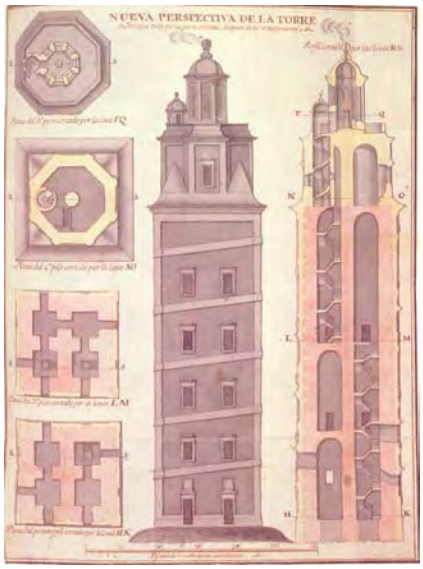


The Roman lighthouse known as the Tower of Hercules was built in the extreme West of Europe, on the edge of the known world, as a symbol of the real presence of Rome in the Western Provinces. In relation to this notable Roman presence in the north-western territory of Hispania, the remains of the city of Lucus Augusti (Lugo), whose walls have already been included in the World Heritage List, the Roman camps of the Cohors I Celtiberorum and Aquis Querquernis and the mines of Las Médulas, which have also been recognised as a World Heritage Site, should be taken into account.

To all of this can be added the fact that it is the only Roman lighthouse of which the name of the architect and engineer who built it is known: Gaius Sevius Lupus, who immortalised his name by leaving it engraved on a commemorative inscription at the foot of his work, which he dedicated to the god Mars Augustus.

Its exceptional character is also determined by the fact that it is a building that, in spite of the reforms carried out throughout its history, which ensured its survival, has preserved the structure of the internal nucleus of the Roman tower in excellent condition, which has a height of 37.2 metres out of a total of the 41 metres it would have originally had. This structure is composed of tour chambers of differing height on each of the three floors which make up the total height. The specific function performed by these rooms, beyond their being purely structural, is unknown.

Criterion IV: "To be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history"[2].



The Tower of Hercules is a fine example of a type of construction of Roman engineering that has nothing comparable either inside or outside of the limits of the Imperium.

The extraordinary interest of this monument is based on the great amount of information that can be obtained from it. As was noted in Criterion III, the Tower is a navigational aid with a square base of approximately 18 metres across and with a height of 41 metres, it was built in three levels,

[2] Directrices Prácticas para la aplicación de la *Convención del Patrimonio Mundial", en* Textos básicos de la Convención del Patrimonio Mundial de 1972, Paris, UNESCO, 2006 (6ª Edición), p. 55.

Summary

each of which is divided into four chambers measuring 2.55 metres across, which were accessed via an exterior ramp ascending in a spiral to the lantern of the lighthouse. Each of these rooms or chambers is covered by a barrel vault.

The structure is reinforced at the top by way of a system of interlinked stone blocks which act as a binding band for the vaults and the walls as can also be seen in other Roman structures, such as the Arch of Caparra and the Mausoleum of Theodoric (474-526), which would suggest the possibility that we are faced with Roman remains of particular significance. This constructive solution gives the Tower a great robustness, protecting it from any seismic movement which could endanger its stability. Indeed, earthquakes were, from ancient times, one of the most serious threats to this type of building as they were particularly vulnerable due to their great height. In fact, the disappearances of both the Lighthouse of Alexandria and the Colossus of Rhodes were attributed to earthquakes.

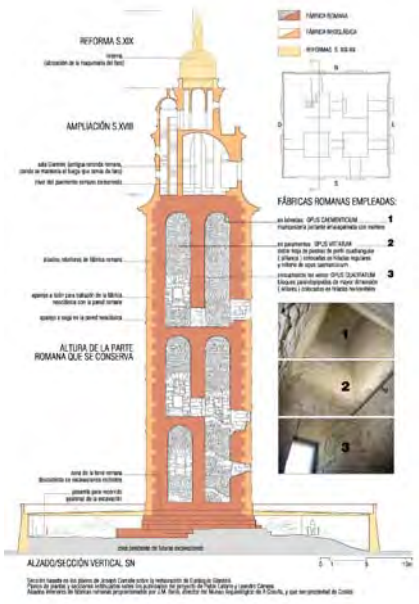
The internal nucleus of the Tower preserves the constructive systems used in Roman times, more specifically the opus quadratum for the jambs and the lintelled arches of the doors and windows, the opus vittatum for the interior and exterior walls and the opus caementicium for the vaults.

What is more, the Tower of Hercules illustrates several significant periods of human history; its origin in the Imperial era, its later evolution in the Middle Ages, its recuperation in modern times and its consolidation and enhancement at the end of the 18th century.

These latter reforms, which were essential to guarantee the maintenance and conservation of the Roman structure, are a paradigmatic example of the scientific restoration of an ancient monument according to the enlightened criteria which prevailed in the Spain of the 18th century.

Thanks to these reforms, the Tower of Hercules offered an image of modernity and development at the beginning of the 19th century as it now boasted new systems of maritime signalling and illumination. However, beneath this exterior facade, which protected the internal structure as if it were a bell jar, lay the Roman lighthouse, which had been consolidated thanks to the work carried out by the architect Eustaquio Giannini.

This image of renovation, change and progress was what influenced the Government of Spain to send a model of the Tower of Hercules lighthouse to the Universal Exhibition in Paris in 1869 as an example of the new engineering projects that were being undertaken in the country. This international forum was chosen to display the new value that had been conferred upon the Tower of Hercules, not only on a regional and national level, but also internationally. This task of publicising the monument was completed by the presentation of the same model at the Universal Exhibition of Vienna in 1873.



The restoration work carried out by Giannini achieved one of the goals proposed by José Cornide; that the Tower of Hercules should be known, valued and respected as a maritime signal but,

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above all, as an emblematic and allegorical monument for the people of the North-West of the Peninsula. Although it is true that, from 1448, the lighthouse was the symbol of the city and was shown on its coat of arms, it was from the beginning of the 19th century that its image began to be disseminated and popularised among society by way of calendars, postcards, picture cards, advertisements, posters, etc. This occurred in such a way that the Tower of Hercules came to be the most representative symbol with which the whole world could identify the city, as is the case with Big Ben in London, the Statue of Liberty in New York, the Eiffel Tower in Paris and the Coliseum in Rome.

The Tower of Hercules left its mark on both art and literature. It is worth highlighting the engravings of Luis Seoane, the unnerving landscapes of Urbano Lugris, which were always dominated by the Tower and the somewhat subjective panoramas of Francisco Llorens, Francisco Fernández Moratinos, and of Alejandro González Pascual, not to mention those of Ferrant. However, the artist who has, without a doubt, presented the freest and most suggestive version of the Tower has been Pablo Ruiz Picasso, who, when he was still discovering the secrets of painting, during the years when he lived with his family in La Coruña, did several oil paintings of the Tower and a drawing in which he transforms the lighthouse into a seductive "tower of caramel".

The literary testimonies are also of great interest, especially the articles written by Emilia Pardo Bazán, the tales by Wenceslao Fernández Flores, the one-act plays by Linares Rivas and the poems of Amor Meilán and Emiliano Balas.

In this context, the lighthouse is the light which marks the way and leads to port, it is the image of the return home, of the happy day's sailing and for this reason it became a symbol, an icon which came to form part of the collective memory of our society. So it was that, at the end of the 19th century and the beginning of the 20th, when the transatlantic liners, loaded with Galician emigrants on their way to Latin America, set sail from the port of La Coruña and headed for the New World, they would cut the steam engines and sound their horns three times as they passed by the Tower in a bitter and emotional farewell ritual. It was the last goodbye before the lighthouse, the emblem of the land they were leaving behind, for all those men and women who were abandoning their land, full of hope for a better future.

These Galician emigrants, however, who were deeply attached to the land in which they were born, carried in their light baggage images of the Tower of Hercules, which began to shine brightly from the other side of the ocean thanks to the articles published by intellectuals in emigration magazines.

There is not one of them that, between 1890 and 1960, did not carry an article dedicated to the Tower, in which feelings of homesickness and nostalgia were evident.

That necessity to move with the times and to modernise without losing its integrity, in order to continue performing its function of orienting boats that sail near it, has allowed the Tower of Hercules to reach us today as a unique and exceptional testimony of an architectural typology, the lighthouse, which we know of via theories, hypotheses and virtual reconstructions but which has no other tangible evidence than the Tower of Hercules itself.

OPUS CAEMENTICIUM in Vaults

Granite chips mixed with limestone mortar.

OPUS VITTATUM in walls

Square blocks of equal height in horizontal rows. These walls enclose an interior filling of opus caementicium.

OPUS QUADRATUM surrounding openings

Parallelepiped blocks laid in horizontal rows: high quality blocks, perfectly squared. Also used in foundations for connection between external wall and ramp, and to make the four corners of the central section of the Tower.

Summary

Name and contact information of official local institution/agency

Organization: Dirección Xeral de Patrimonio Cultural.
Consellería de Cultura y Deporte.

Xunta de Galicia.

Address: Edificio San Caetano s/n.

15781 SANTIAGO DE COMPOSTELA (A Coruña. España)

Tlfno. +34-981544877.

Fax. +34-981544830.

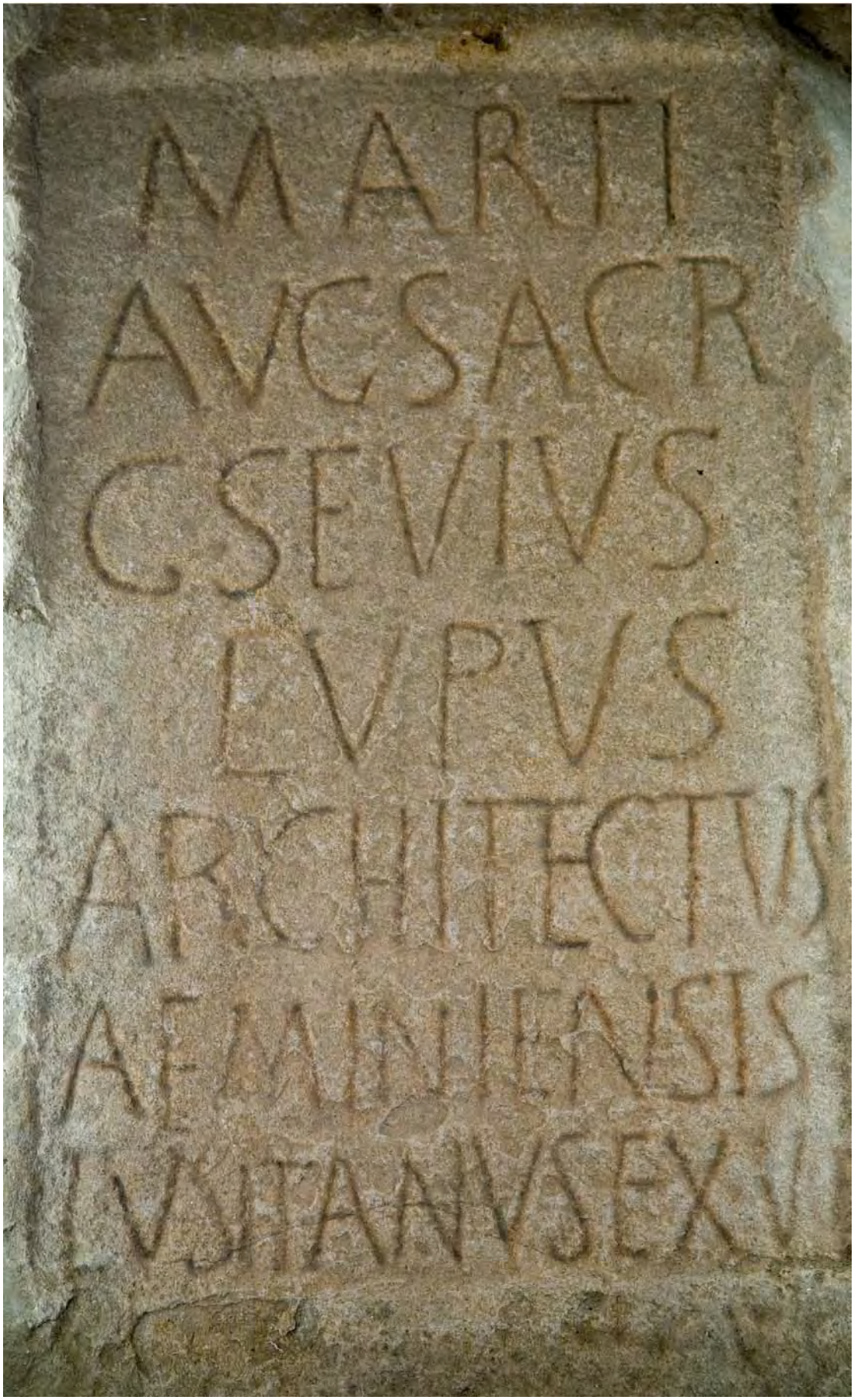
E-mail: crbc@xunta.es

1. Tower of Hercules. Eastern façade.

TOWER OF HERCULES

PHOTOGRAPHIC APPENDIX

2. Roman inscription by the architect Gaius Sevius Lupus, author of the *Farum Brigantium* (Tower of Hercules)

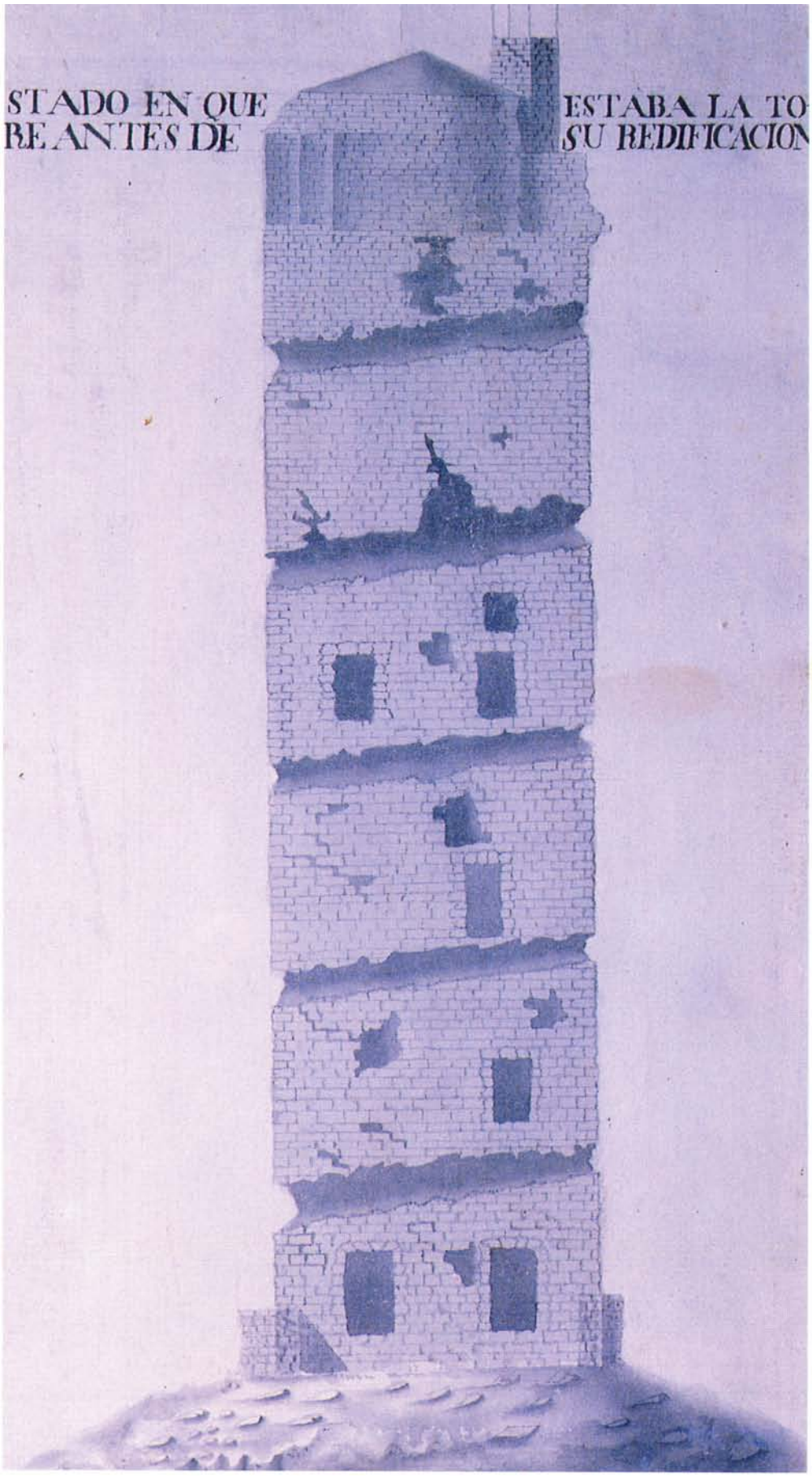


3. Mapamundi by the Beato del Burgo de Osma. C. 1085

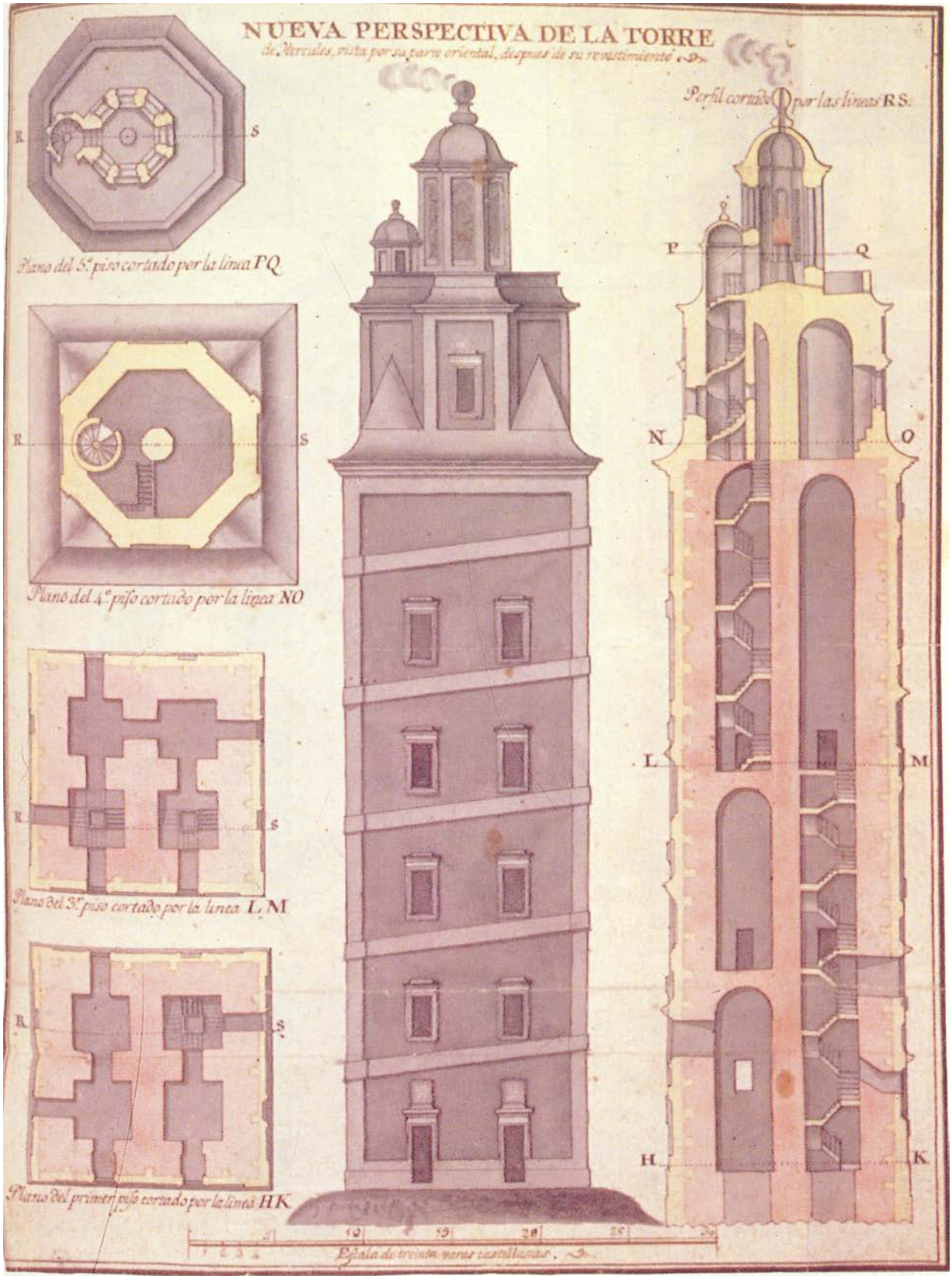
Mapamundi. *Beato del Burgo de Osma*, ff. 34v-35

4. Detail of the Tower of Hercules

5. Illustration of the Tower of Hercules. C.1765



6. Ground plan, elevation and section of the Tower of Hercules by José Cornide Saavedra. 1792

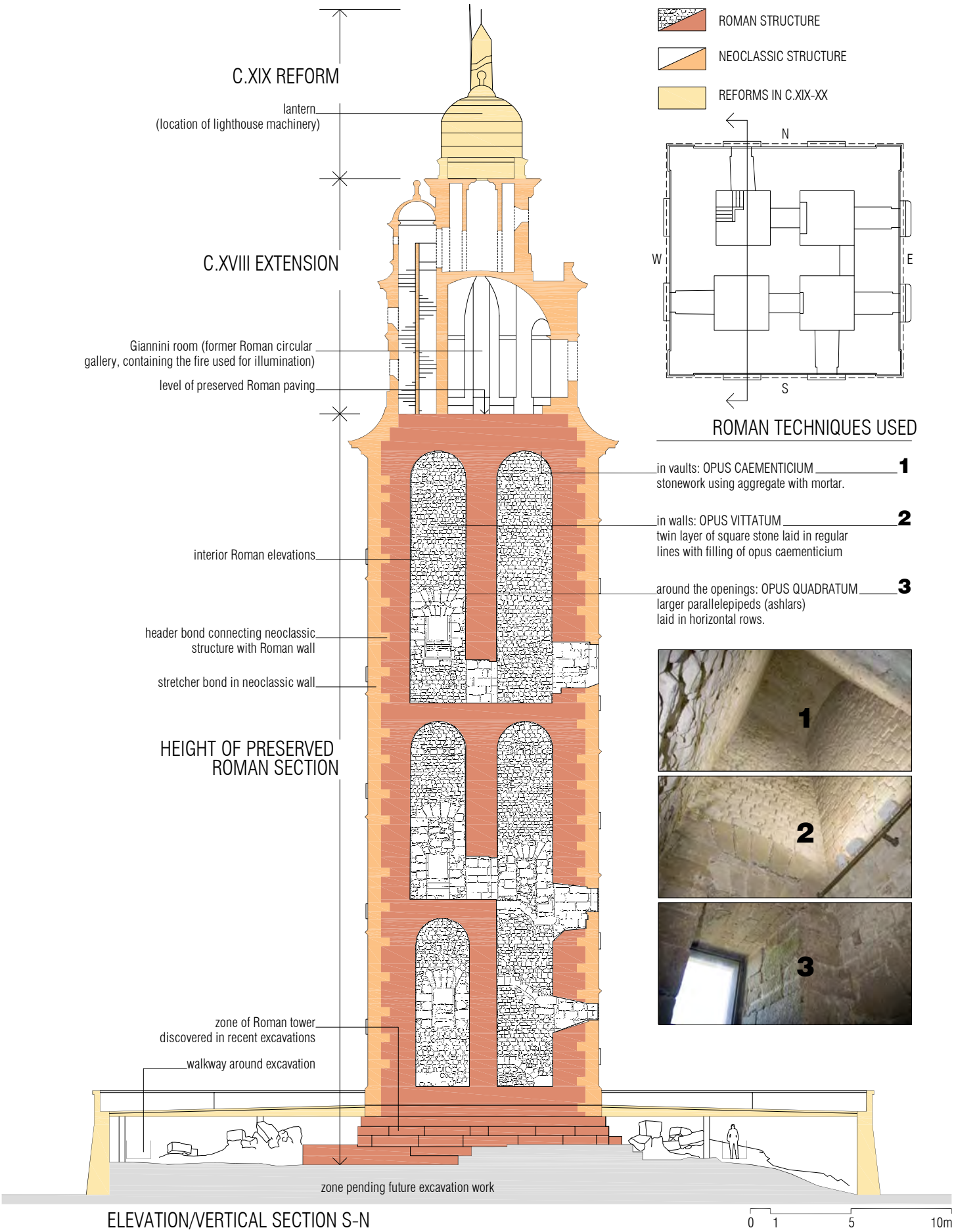

NUEVA PERSPECTIVA DE LA TORRE
de Hercules, vista por su parte oriental, despues de su revestimiento.
Perfil cortado por las lineas RS.
Plano del 5º piso cortado por la linea PQ
Plano del 4º piso cortado por la linea NO
Plano del 3º piso cortado por la linea LM
Plano del primer piso cortado por la linea HK
Escala de treinta varas castellanas.

7. View of the Tower of Hercules from Punta Herminia

8 Western view of the Tower of Hercules

9. Southern façade of the Tower of Hercules

10. Explanatory section of the Tower of Hercules


ROMAN STRUCTURE
NEOCLASSIC STRUCTURE
REFORMS IN C.XIX-XX
N
W
E
S
C.XIX REFORM
lantern
(location of lighthouse machinery)
C.XVIII EXTENSION
Giannini room (former Roman circular gallery, containing the fire used for illumination)
level of preserved Roman paving
interior Roman elevations
header bond connecting neoclassic structure with Roman wall
stretcher bond in neoclassic wall
HEIGHT OF PRESERVED ROMAN SECTION
zone of Roman tower discovered in recent excavations
walkway around excavation
zone pending future excavation work
ROMAN TECHNIQUES USED
in vaults: OPUS CAEMENTICIUM 1
stonework using aggregate with mortar.
in walls: OPUS VITTATUM 2
twin layer of square stone laid in regular lines with filling of opus caementicium
around the openings: OPUS QUADRATUM 3
larger parallelepipeds (ashlars) laid in horizontal rows.
1
2
3
0 1 5 10m

ELEVATION/VERTICAL SECTION S-N

Section based on plans from Joseph Cornide on the restoration project by Eustaquio Giannini
Plans of levels and sections redrawn from those published for the project by Pablo Latorre and Leandro Cámara.
Internal elevations and Roman structures provided by J.M.Bello, director of the Archaeological Museum of A Coruña, property of the Coastal Authority.

OPUS CAEMENTICIUM — in Vaults

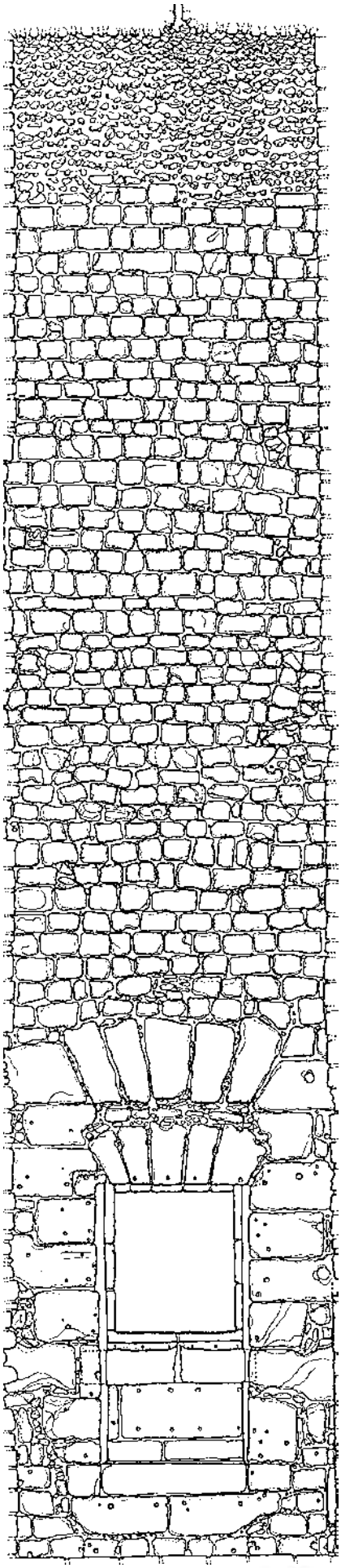
Granite chips mixed with limestone mortar.

OPUS VITTATUM — in walls

Square blocks of equal height in horizontal rows.
These walls enclose an interior filling of opus caementicium.

OPUS QUADRATUM — surrounding openings

Parallelepiped blocks laid in horizontal rows: high quality blocks, perfectly squared. Also used in foundations for connection between external wall and ramp, and to make the four corners of the central section of the Tower.



2. DESCRIPTIÓN

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2. DESCRIPTION.

2. a. Description of the monument.

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B. Buffer Zone.

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A. 1. Legend of King Breogán.

A. 2 Legend of Hercules.

A.2.1 The influence of the legend of Hercules on the iconography of the Tower of Hercules.

A. 3. Legend of Trezenzonio.

B. Origins of the Roman lighthouse.

B. 1. Background to the Roman lighthouse.

B. 2. The integration of A Coruña in Roman territory.

B. 3. Dating the lighthouse.

B. 4. The problem of authorship

B. 5. Morphological features.

B.5.1. The lighthouse brazier.

B. 6. The Tower at the end of the Roman era.

B. 7. The first literary references.

C. The Roman lighthouse during the Middle Ages.

C. 1. Iconography of the Tower of Hercules in Mediaeval times.

D. The resurgence of the Tower of Hercules lighthouse.

D. 1. The Duke of Uceda's reform (1684).

D. 2 Restoration attempts in the 18th C.

D.2.1 La Ferriere and Boyssín's reports.

D.2.2. The lightning strike of 1769 and the new attempt at restoration.

E. The Ministry of Maritime Affairs and the restoration of the Tower of Hercules.

E. 1. Eustaquio Giannini and the restoration project.

F. The modernization of the lighthouse in the 19th Century.

G The Tower of Hercules in the second half of the 19th Century.

H. - The Tower of Hercules in the 20th Century.

2. DESCRIPTION

2. a. Description of the monument.

The Tower of Hercules is the only Roman lighthouse to have remained operational from its beginnings up until the present day, fulfilling its original function as maritime signal and navigation aid for the ships that cross the Atlantic. It is thus a unique testimony to the numerous lighthouses which past civilizations built in the Mediterranean Sea and the Atlantic Ocean and which, unfortunately, have been lost with the passing of time. The Tower of Hercules continues to serve its mission of steering and orientating the men of the sea who face the immensity of the ocean every day. In all probability, it was built in the second half of the 1st century or the early 2nd century AD by the Roman Empire in the finis terrae of the known world, to accompany the boats which navigated the most western limits of the empire.

View from Punta del Orzán

This lighthouse was erected on the shores of the Atlantic Ocean, in north-western Hispania, at the entrance to the great Artabran Gulf which comprises the sea estuaries of Burgo, Ares and Ferrol (A Coruña, Spain). The chosen site was a rocky hillock, named Punta Eiras, of almost 57 metres in height, situated between Punta Herminia and Punta del Orzán, overlooking the western edge of the peninsula upon which the city of Coruña itself lies.

View from Punta Herminia

The perfectly conserved lighthouse stands by the shores of the ocean. It has a quadrangular base with sides measuring approximately 14 m and a total height of 55 m, of which 34 m correspond to the Roman masonry, and 21 m to the 1788 renovations n to modernize the maritime signalling system.

View from Playa de las Lapas

The Tower stands upon a wide polygonal platform 32.40 m wide, built as a base in the early 19th century. On the outside, the building has a 34 m prismatic elevation, corresponding to the

Roman masonry, crowned by an octagonal tower with triangular section reinforcements in the corners that soften the effect of the square base. This first towered body is crowned by another, smaller one that provides the base for the lantern, home to the powerful lamp whose beam illuminates the intrepid navigators.

The four exterior facades are very austere in design, having a homogenous structure that is repeated on all four fronts, with small variations in the position of the apertures. The sobriety of the architecture is clear in the use of plain molding on the border and on the cornerstones of the prismatic body's four fronts. The windows and their corresponding surrounds are staggered on each face, making use of some of the primitive apertures of the inner core. These were made uniform for reasons of symmetry although in doing so the real openings had to be alternated with blind or false ones. One of the most characteristic traits of this lighthouse is the spiral etching that encircles its four sides, from the base to the crown of the prismatic body; a reminder of the ascending ramp which provided access to the tower in Roman times. The distribution of the apertures is conditioned by this molding, giving rise to five pairs of windows on the east and west facades, and four on the north and south fronts.

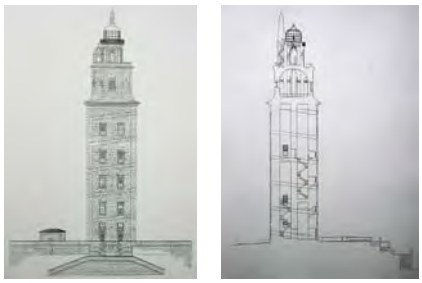
The Roman lighthouse is conserved in perfect conditions beneath this new outer casing which was erected during the restoration of the monument by the military engineer Eustaquio Giannini in 1789. The original Roman construction can be ascribed to the architect Gaius Sevius Lupus, from the former province of Lusitani (near present-day Coimbra, Portugal), thanks to the commemorative epigraph that he left at the foot of the Tower. By good fortune, his inscription on a cornerstone has been preserved at the base of the tower, protected by a small shelter on the platform. It is indeed exceptional that we should know the name of the architect who oversaw this work as this was not common practice in those days. In this case, his memory lives on thanks to the preservation of the inscription which can be interpreted as an irrefutable sign of the age, as demonstrated by the fact that it was reproduced, along with the Tower in an engraving from the late 17th century.

Small building with inscription

The inner core of the lighthouse remains of the original Roman stonework, while the external access ramp has been lost. This inner core is a construction with a square floor plan, measuring 11.75 m per side, that is, 33 Roman feet. Of the spiral ramp and the outside wall, all that remains is the evidence of the archaeological excavations of 1992. According to the data of Caballero Zoreda and Latorre González Moro, the foundations of

[1] The reading adopted by modern authors, J. M. Bello, La Coruña Romana y Alto Medieval. Siglos I-XII, A Coruña, Via Láctea, 1994, pp.38-39.

Aereal view



Elevation and seccion. P.Latorre / L.Cámara

Descripción de España y de las costas y pueblos (1634) P.Taxeira. Detail.

Inscription of Gaio Sevio Lupo

MARTI / AUG[USTO] SACR[UM] /
C[AIUS] SEVIUS / LUPUS /
ARCHITECTUS / AEMINIENSIS /
LUSITANUS EX VO[TO][1.]

Translation: Consecrated to Mars Augustus. Caius Sevius Lupus, architect of Aeminium Lusitano, having made this vow.

the building consisted of a platform of large ashlars levelled on a step carved out of a rocky promontory. The remains of the outside wall were not found in the excavations, but what was discovered were the imprints of the platform and more importantly the alignment marks on the foundations, according to which the floor plan of the primitive Tower was of some 18 m. per side.

With regards to the height of the tower, 37.58 m correspond to the Roman masonry, of which 34.38 m are hidden under the neoclassical shell. The remaining 3.20 m are to be found under the platform, which was built in the early 19th century, and can easily be seen from the excavation site. On top of this structure would have been the top where the rotunda lay, which, according to 18th century documents was 8 varas in diameter (approx. 6.40m) and 5 varas high (approx. 4 m), signifying that the total height of the Tower would have been around 41.58 m. These data indicate that the Tower of Hercules is one of the highest preserved Roman buildings; superseded by the Pont du Gard (France) at 49 m, but ahead of Trajan's Column in Rome at 38 m; the Aurelian Column, Rome, at 30 m; the aqueduct of Segovia (Spain) at 28.5 m and the "Les Ferreres" aqueduct of Tarragona (Spain) at 27 m.

Pont du Gard
(France)

Trajan´s Column
Rome (Italy)

Aurelian Column
Rome (Italy)

Aqueduct of Segovia
(Spain)

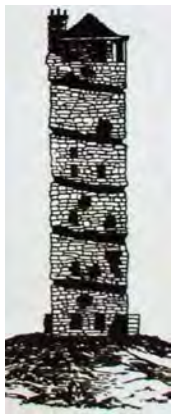
"Les Ferreres" aqueduct of Tarragona
(Spain)

The data available to compare the Tower of Hercules with other ancient lighthouses are very scant. There are no other Roman lighthouse preserved in their entirety and the calculations of their dimensions are based on speculation and interpretations.

Out of the many Roman lighthouses which were built in Italy, such as those of Ostia, Messina, Pozzuoli, Centumcellae, Clasis, Capri or Brindisi, there are no references to the height which they might have had.

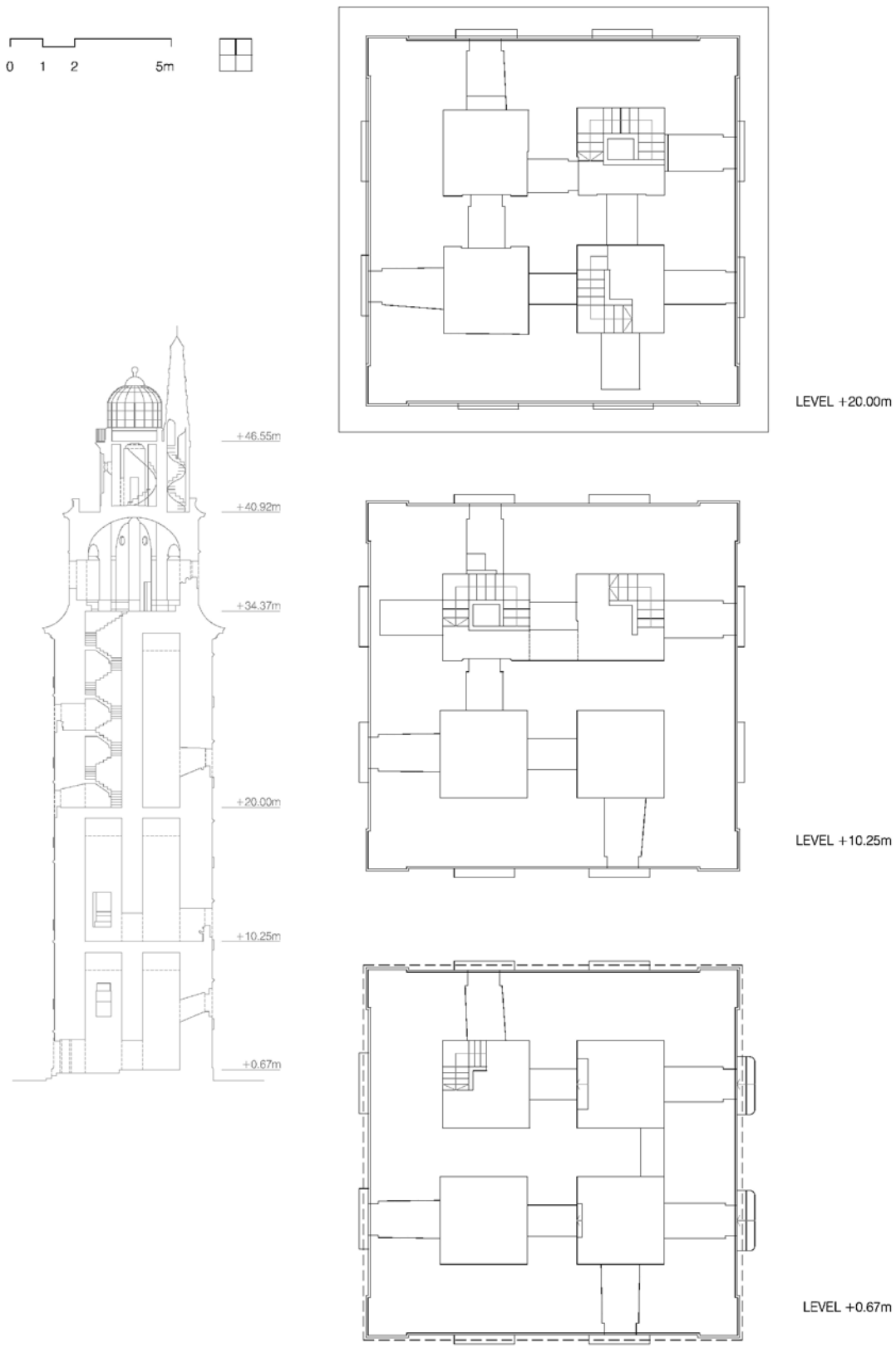
Etching of the Tower with inscription at the bottom, 17th century.

Etching, 18th century

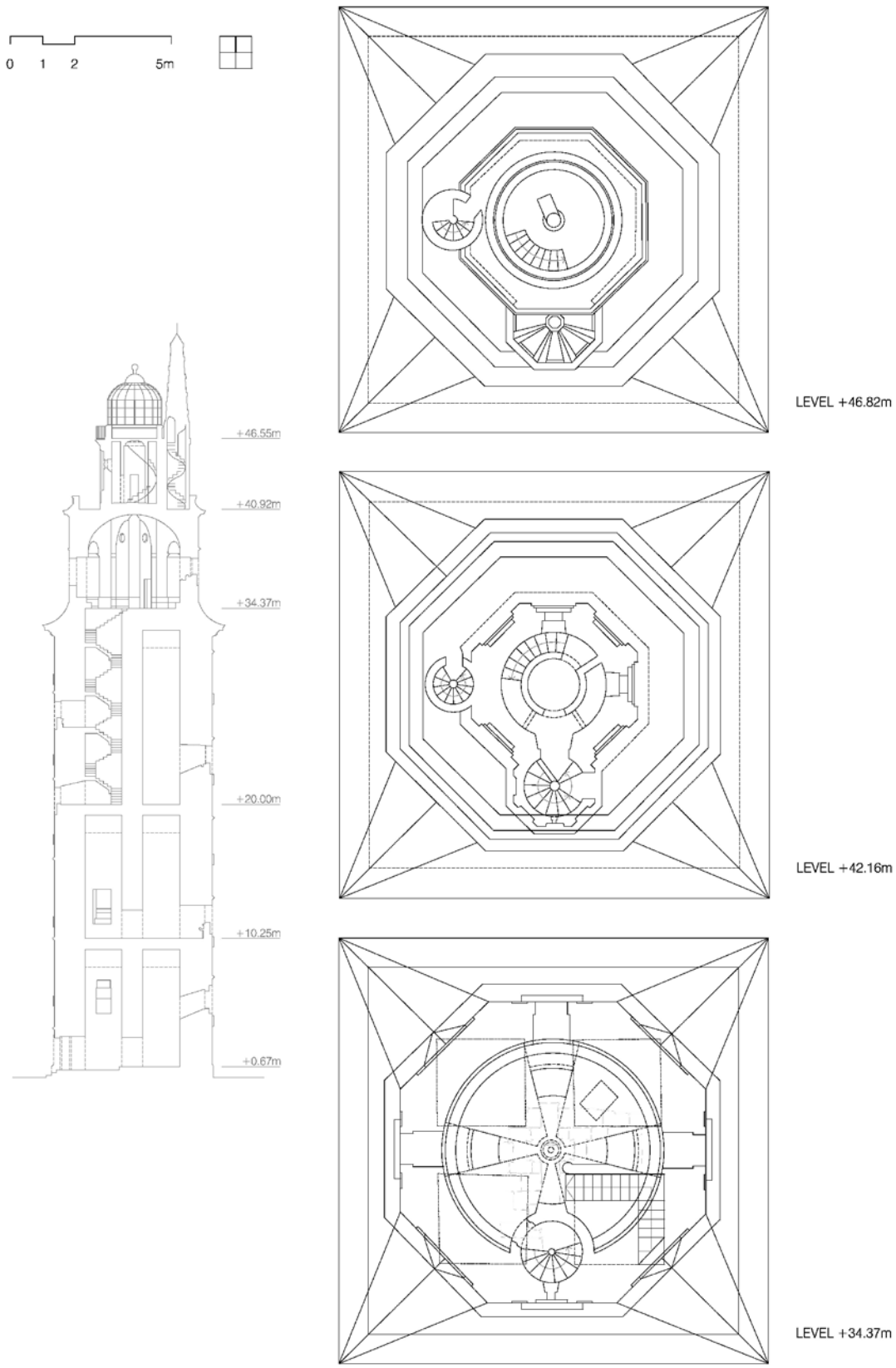


Allard, s.XVIII

Roman structure and 18th century structure



Floor Plans.
Plans redrawn from those published for the project by P. Latorre and L. Cámara



Floor Plans.
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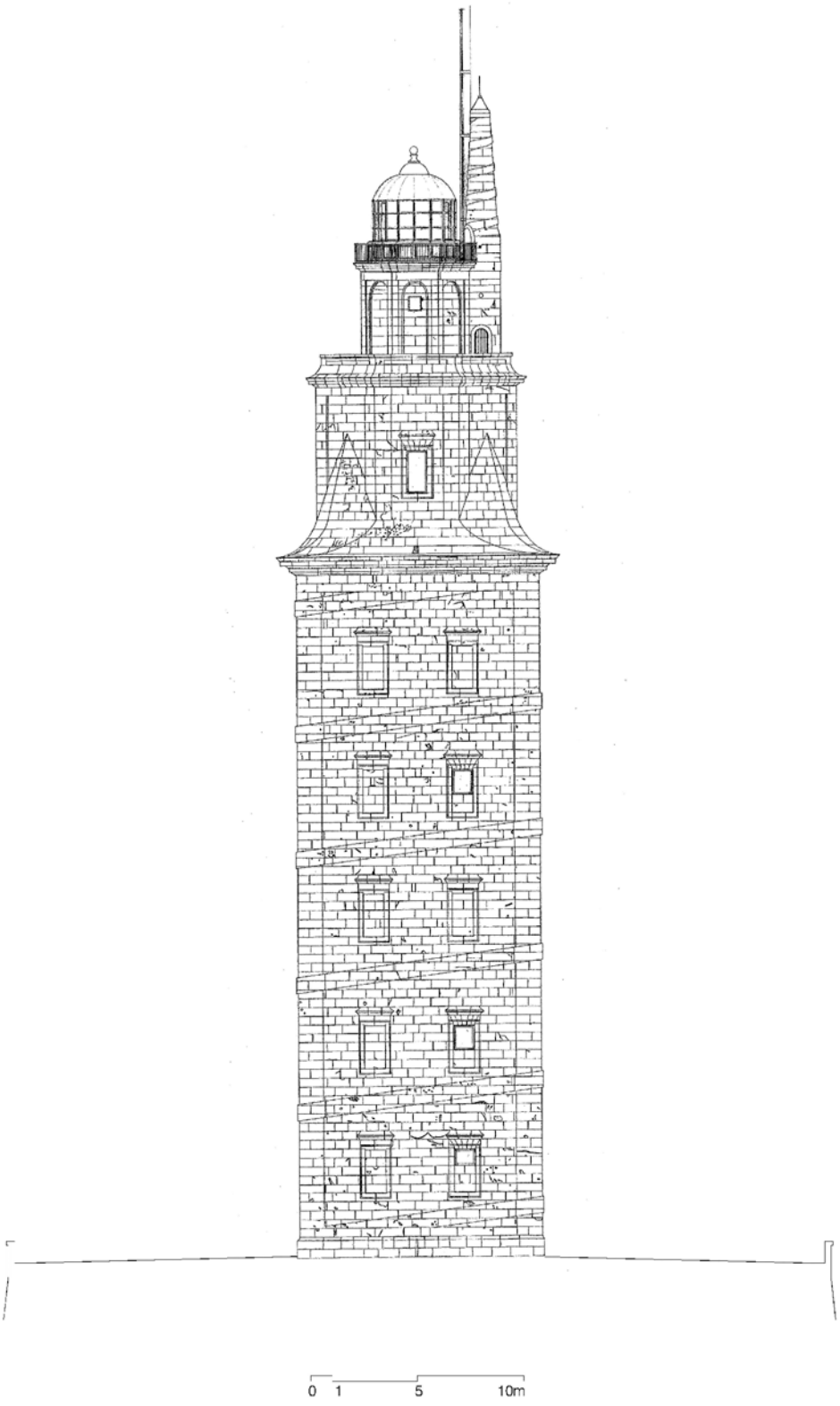
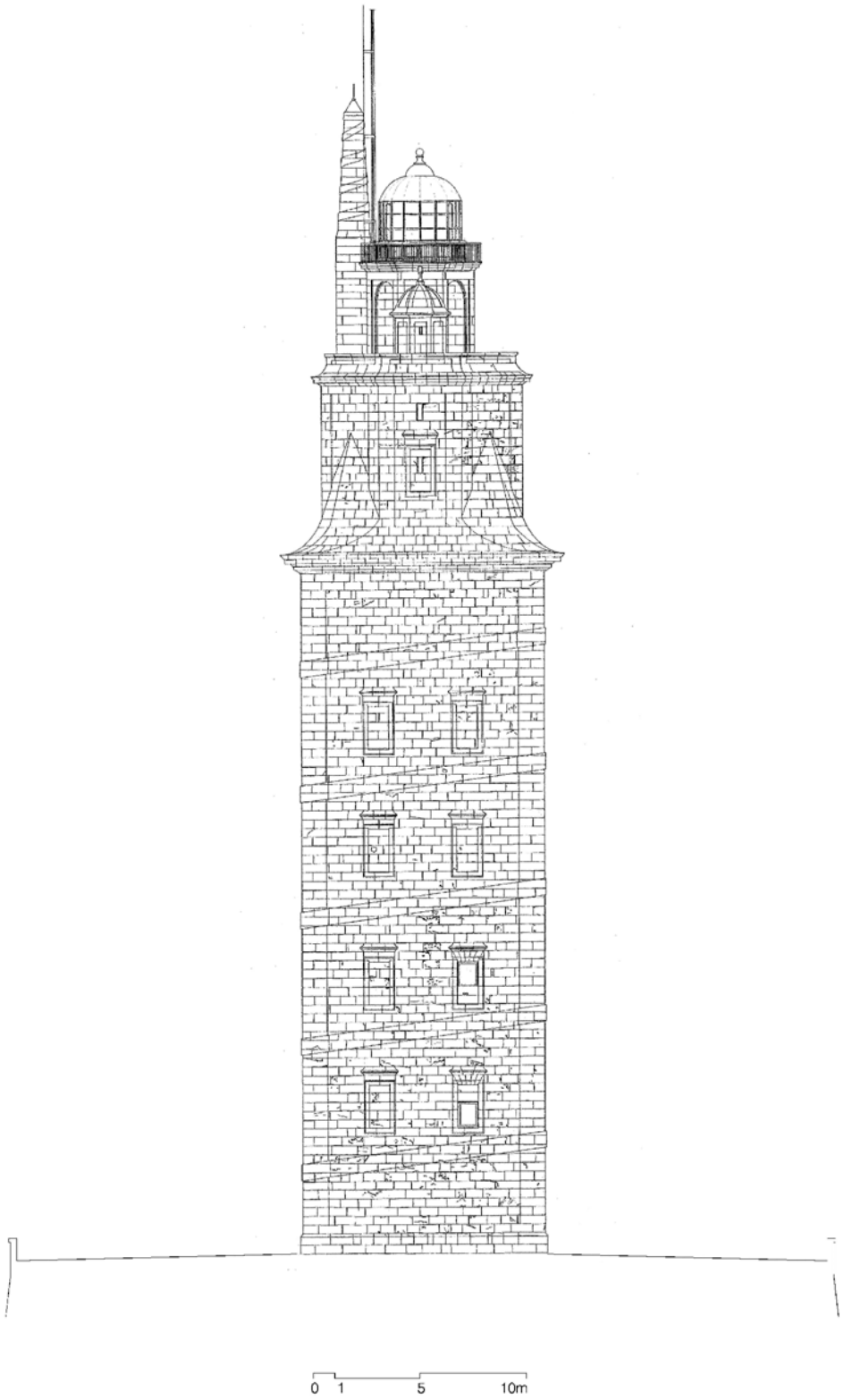


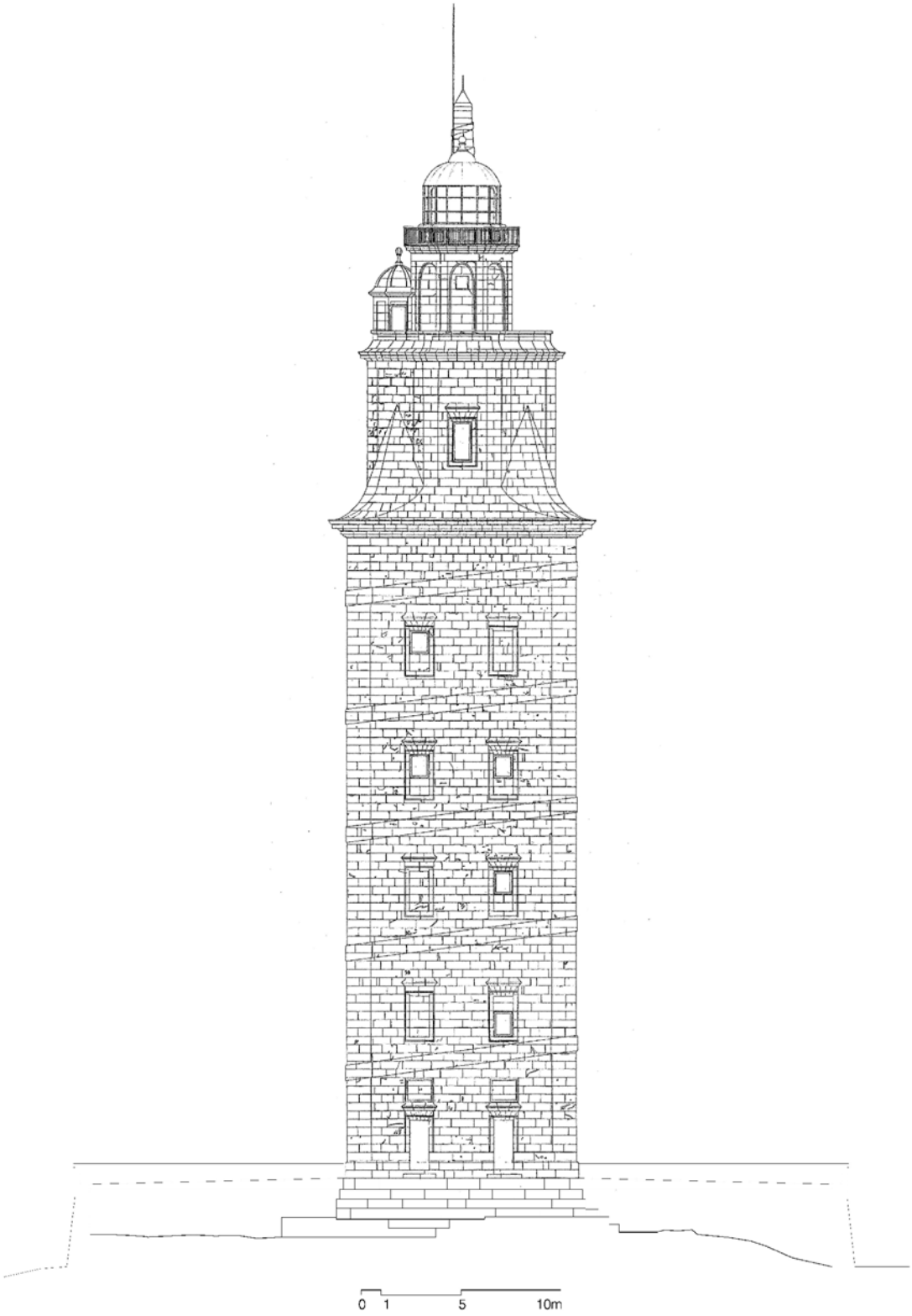
Current state: Northern Elevation

Plans of elevations obtained by land-based photogrammetry, provided by L. Cámara and P. Latorre, superimposed over a diagram of the platform and excavation.



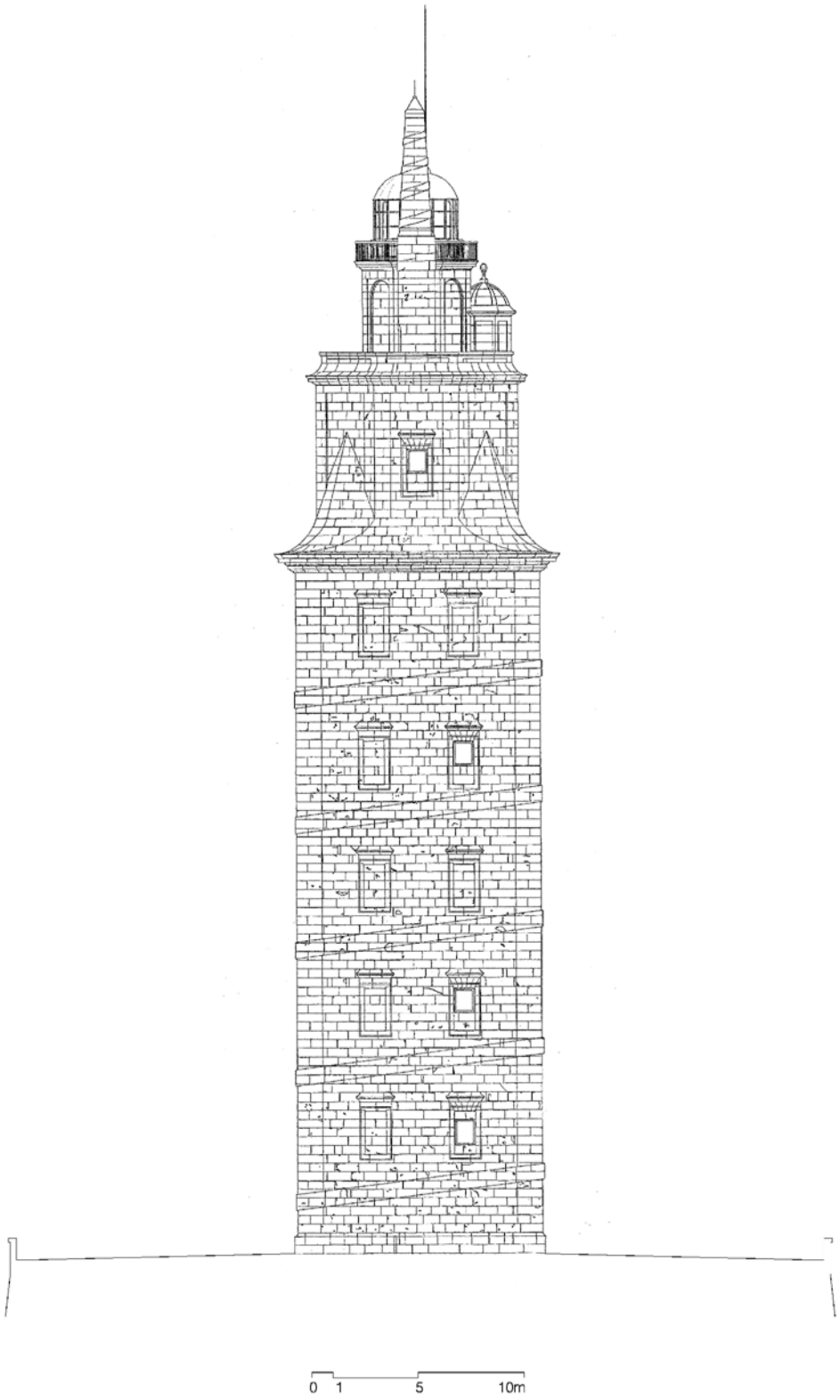
Current state: Southern Elevation

Plans of elevations obtained by land-based photogrammetry, provided by L. Cámara and P. Latorre, superimposed over a diagram of the platform and excavation.



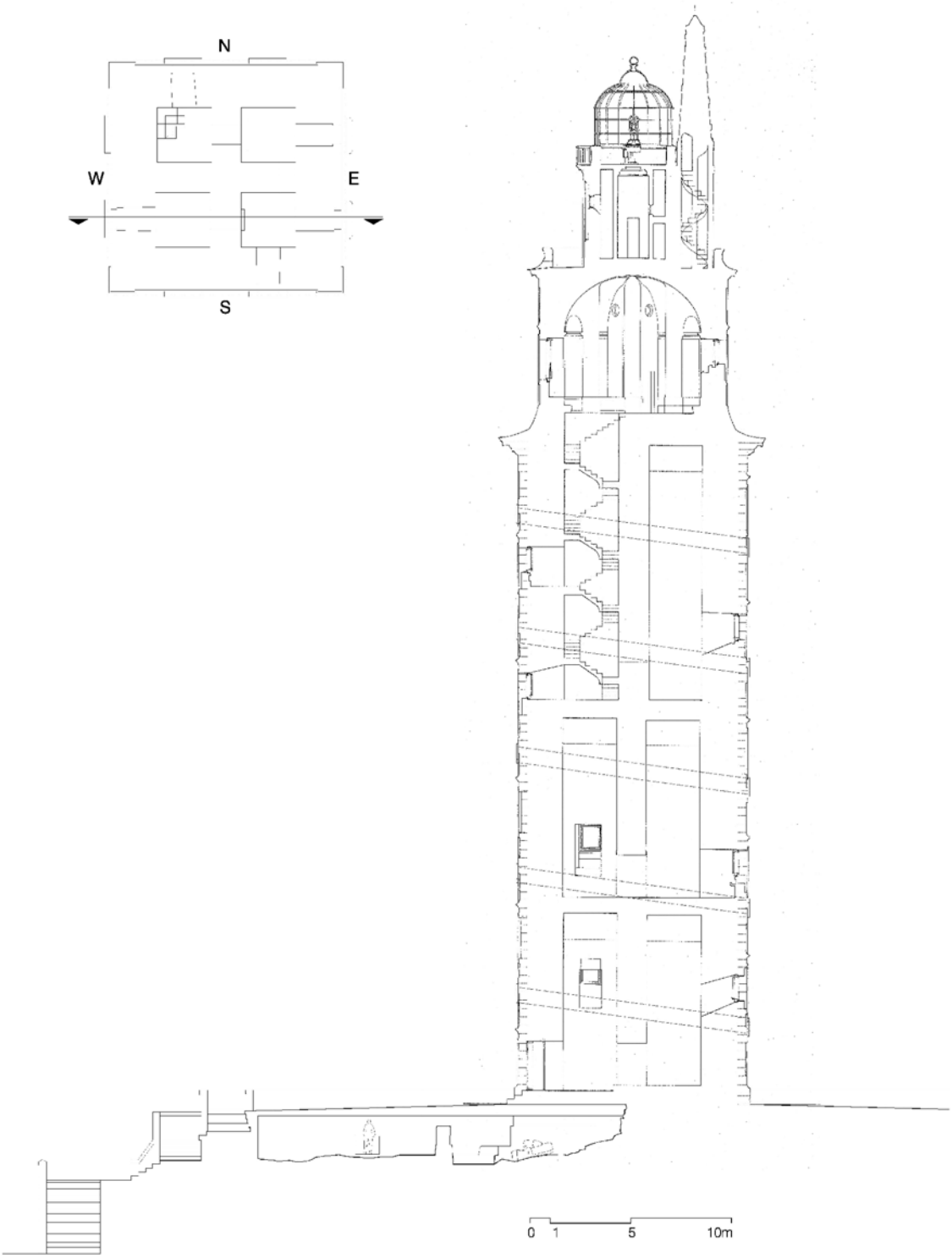
Current state: Easthern Elevation

Plans of elevations obtained by land-based photogrammetry, provided by L. Cámara and P. Latorre, superimposed over a diagram of the platform and excavation.

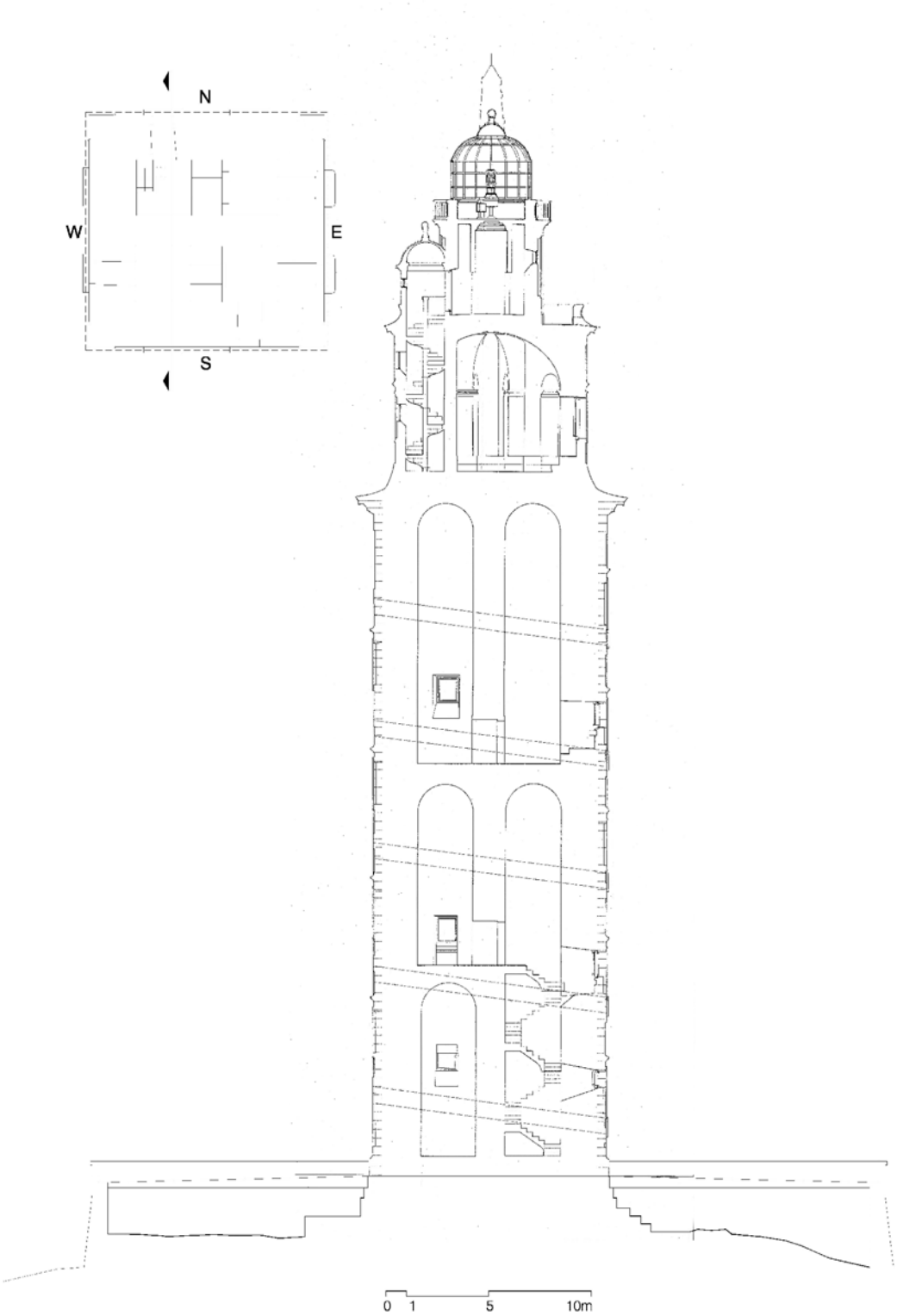


Current state: Westhern Elevation

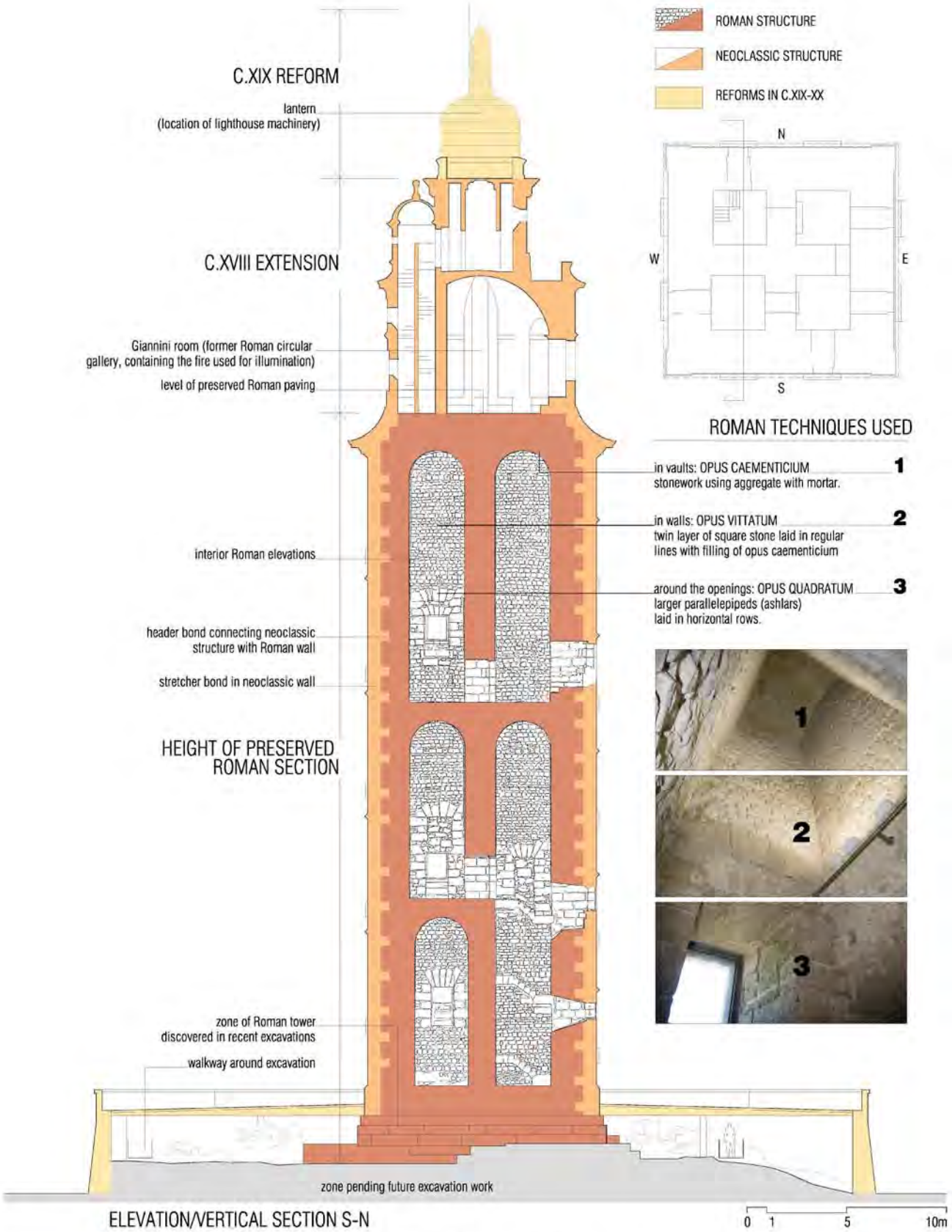
Plans of elevations obtained by land-based photogrammetry, provided by L. Cámara and P. Latorre, superimposed over a diagram of the platform and excavation.



Current state: Vertical E-W Section.
Plans provided by L. Cámara and P. Latorre, superimposed over a diagram of the platform and excavation.

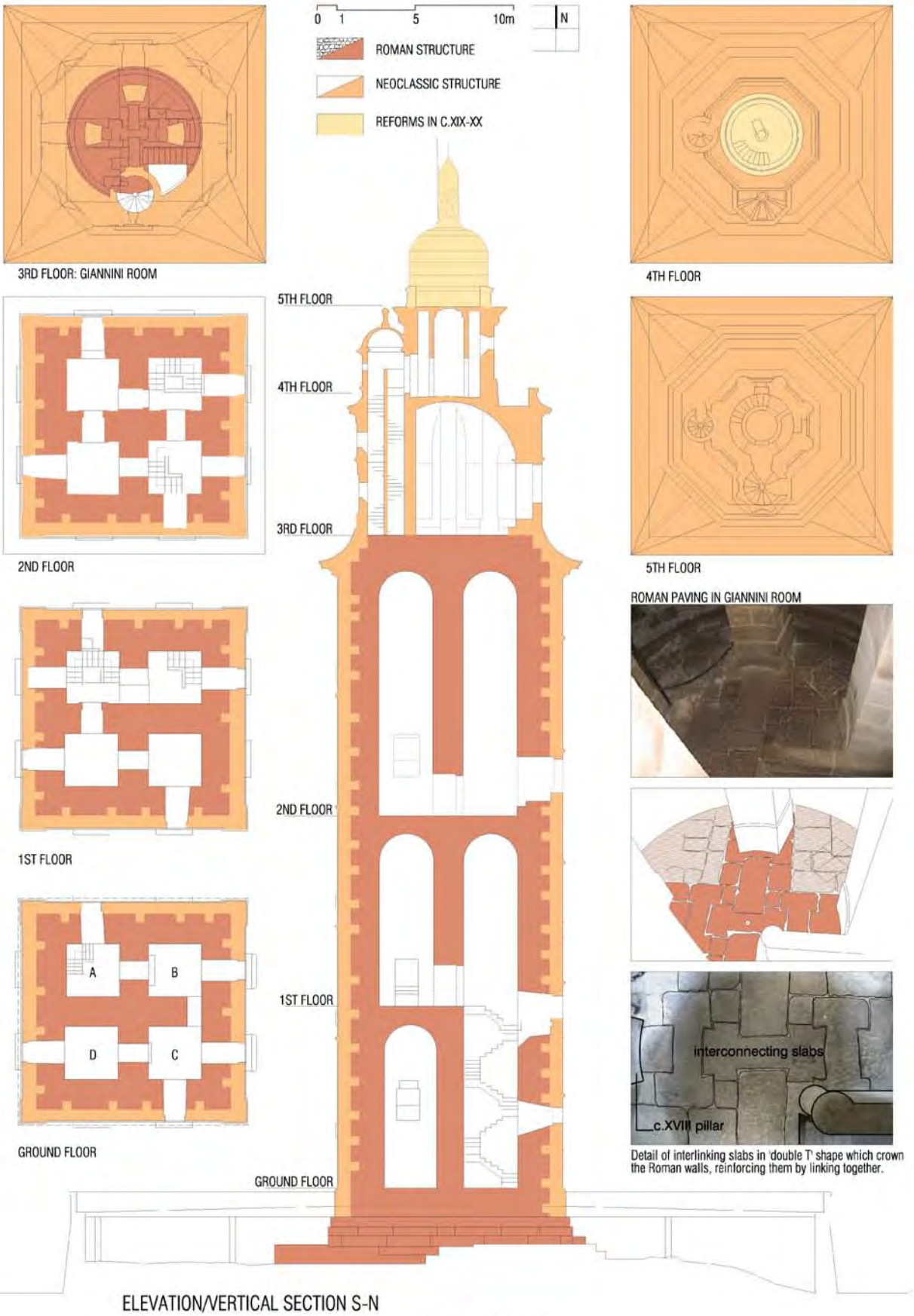


Current state: Vertical E-W Section.
Plans provided by L. Cámara and P. Latorre, superimposed over a diagram of the platform and excavation.


ROMAN STRUCTURE
NEOCLASSIC STRUCTURE
REFORMS IN C.XIX-XX
N
W
E
S
C.XIX REFORM
lantern
(location of lighthouse machinery)
C.XVIII EXTENSION
Giannini room (former Roman circular gallery, containing the fire used for illumination)
level of preserved Roman paving
interior Roman elevations
header bond connecting neoclassic structure with Roman wall
stretcher bond in neoclassic wall
HEIGHT OF PRESERVED ROMAN SECTION
zone of Roman tower discovered in recent excavations
walkway around excavation
zone pending future excavation work
ROMAN TECHNIQUES USED
in vaults: OPUS CAEMENTICIUM 1
stonework using aggregate with mortar.
in walls: OPUS VITTATUM 2
twin layer of square stone laid in regular lines with filling of opus caementicium
around the openings: OPUS QUADRATUM 3
larger parallelepipeds (ashlars) laid in horizontal rows.
1
2
3
0 1 5 10m

ELEVATION/VERTICAL SECTION S-N

Section based on plans from Joseph Cornide on the restoration project by Eustaquio Giannini
Plans of levels and sections redrawn from those published for the project by Pablo Latorre and Leandro Cámara.
Internal elevations and Roman structures provided by J.M.Bello, director of the Archaeological Museum of A Coruña, property of the Coastal Authority.



ELEVATION/VERTICAL SECTION S-N

Section based on plans by Joseph Cornide on the restoration project of Eustaquio Giannini

View from the crane during work (photo: Pablo Latorre)

Details of the main shaft of the tower

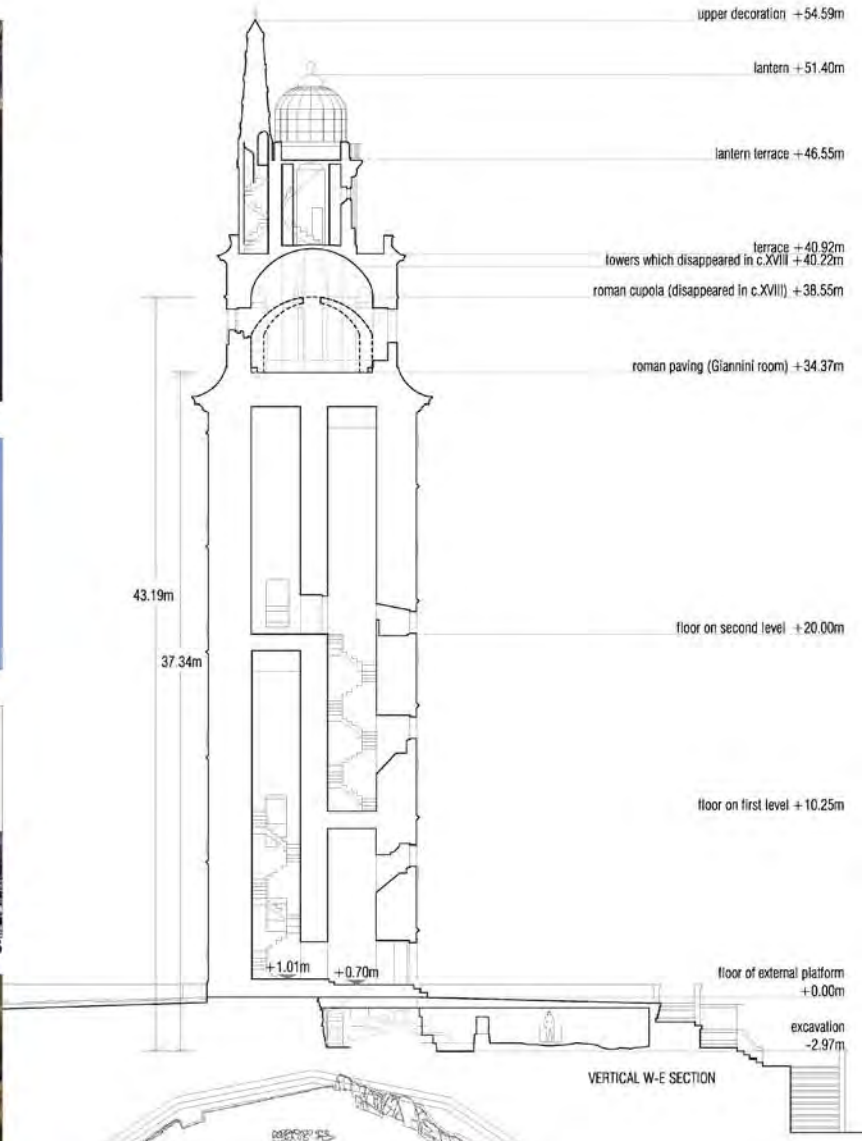
Eastern façade during work (photo: Pablo Latorre) F5

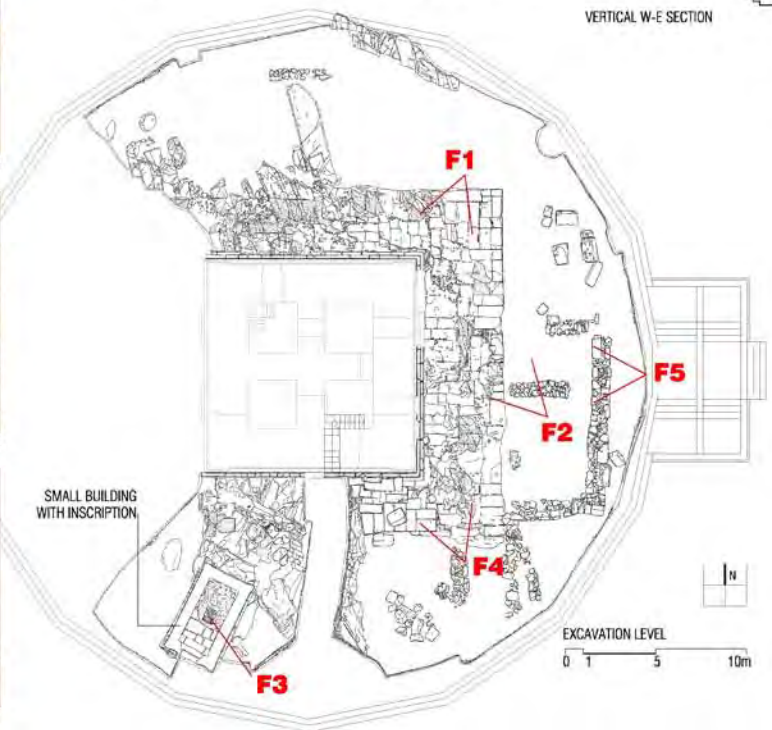
Current state of excavation work F4

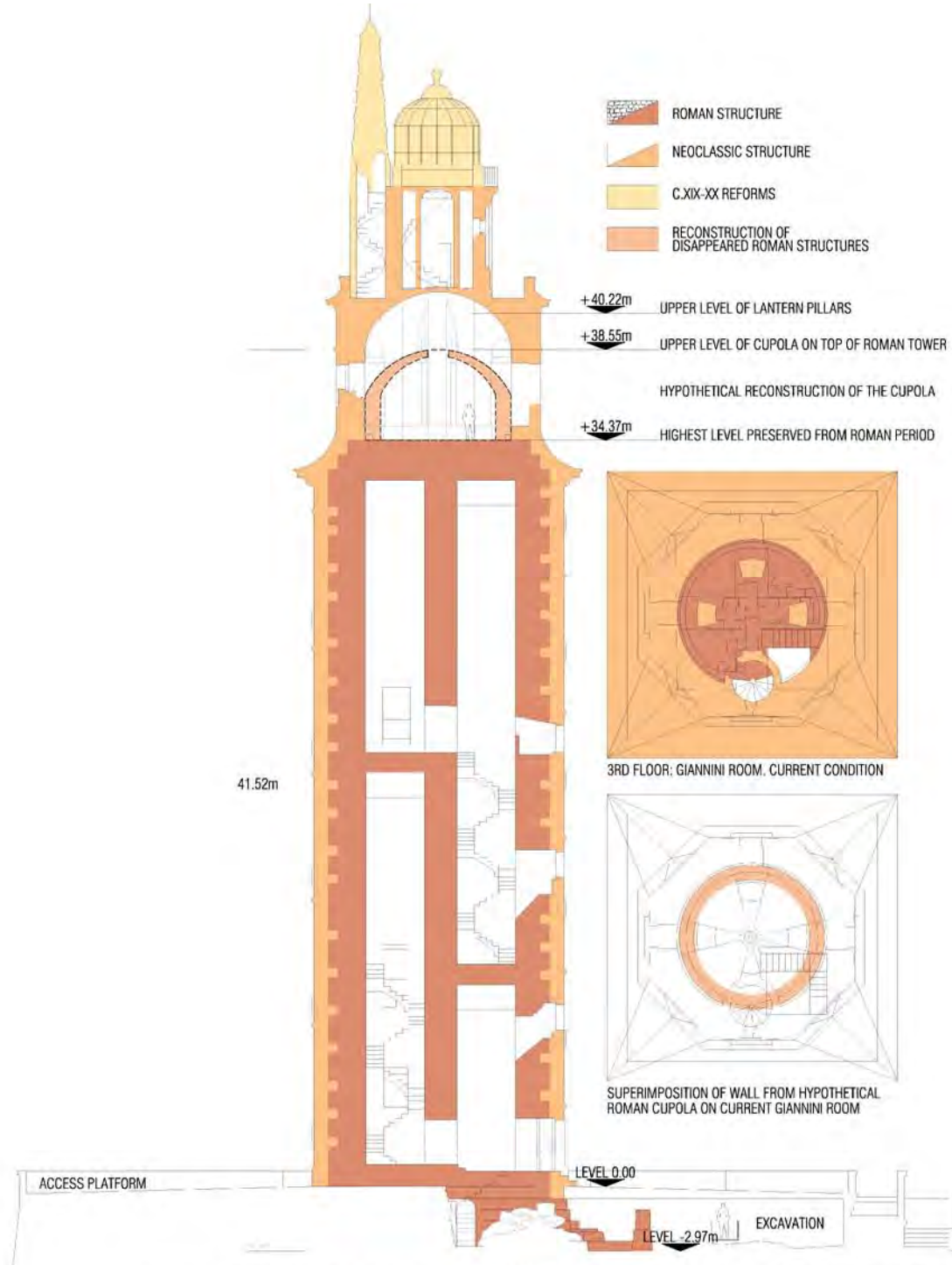
Current state of excavation work F2

Stone with inscription F3

Excavation during work (photo: Pablo Latorre) F1

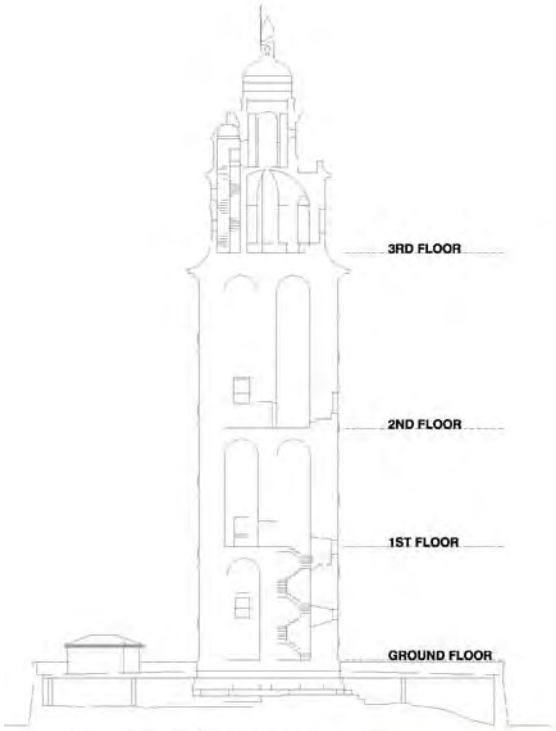




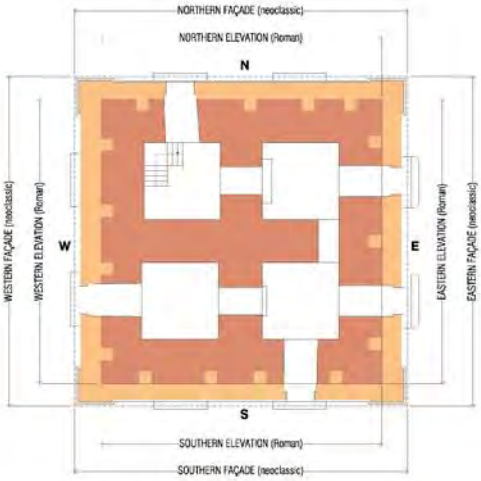


HYPOTHETICAL RECONSTRUCTION OF THE OLD UPPER SECTION OF THE ROMAN TOWER WITH THE CIRCULAR CUPOLA "EIGHT BARS IN DIAMETER AND FIVE BARS IN HEIGHT"(ACCORDING TO THE DESCRIPTION OF J. CORNIDE AND THE WORKS RECORD OF E. GIANNINI), SUPERIMPOSED OVER THE PRESENT-DAY E-W SECTION

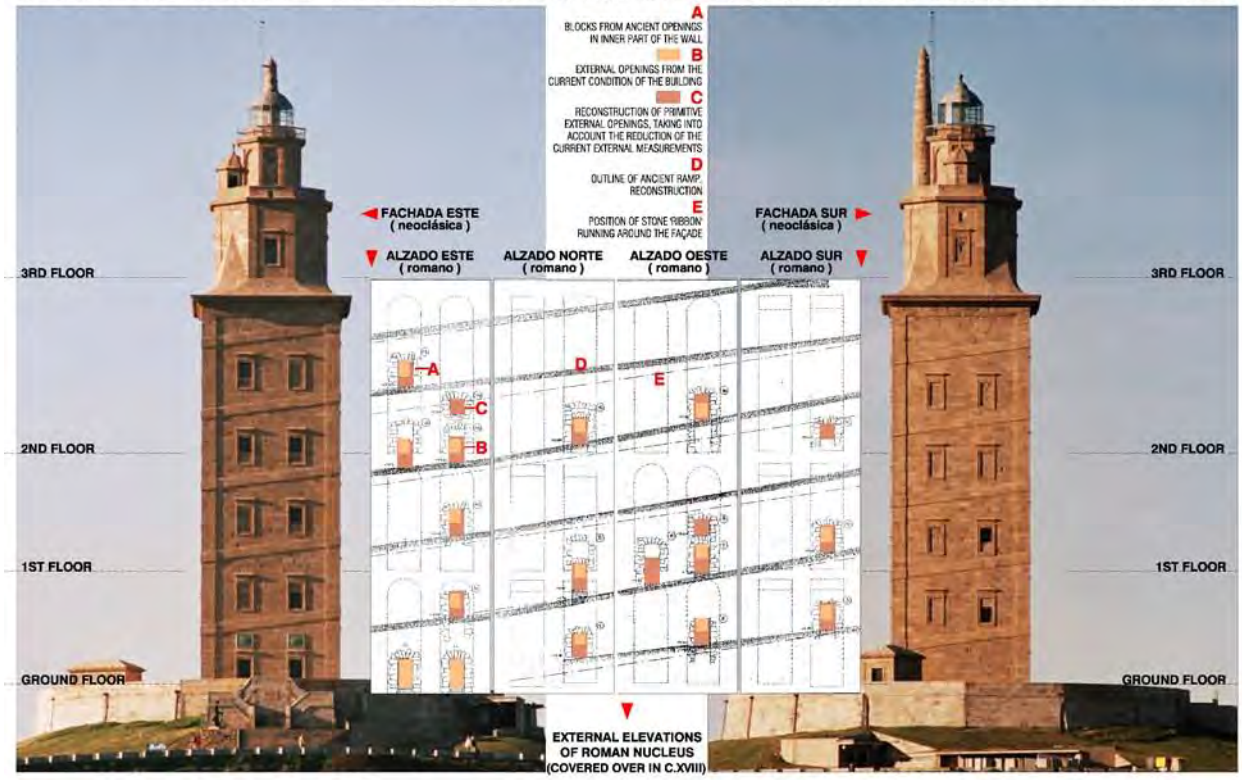
Plans of floors and sections redrawn from those published for the project by Pablo Latorre and Leandro Cámara.



Section redrawn based on plans published for the project by P. Latorre and L. Cámara



PLAN BY S. HUTTER ON THE RELATIONSHIP BETWEEN THE ROMAN AND NEOCLASSICAL FAÇADES: SUPERIMPOSITION OF OLD AND NEW OPENINGS, ROMAN RAMP AND NEOCLASSIC SHELL


A
BLOCKS FROM ANCIENT OPENINGS IN INNER PART OF THE WALL
B
EXTERNAL OPENINGS FROM THE CURRENT CONDITION OF THE BUILDING
C
RECONSTRUCTION OF PRIMITIVE EXTERNAL OPENINGS, TAKING INTO ACCOUNT THE REDUCTION OF THE CURRENT EXTERNAL MEASUREMENTS
D
OUTLINE OF ANCIENT RAMP. RECONSTRUCTION
E
POSITION OF STONE RIBBON RUNNING AROUND THE FAÇADE
FACHADA ESTE (neoclásica)
FACHADA SUR (neoclásica)
ALZADO ESTE (romano)
ALZADO NORTE (romano)
ALZADO OESTE (romano)
ALZADO SUR (romano)
3RD FLOOR
2ND FLOOR
1ST FLOOR
GROUND FLOOR
EXTERNAL ELEVATIONS OF ROMAN NUCLEUS (COVERED OVER IN C.XVIII)

OPUS CAEMENTICIUM in Vaults

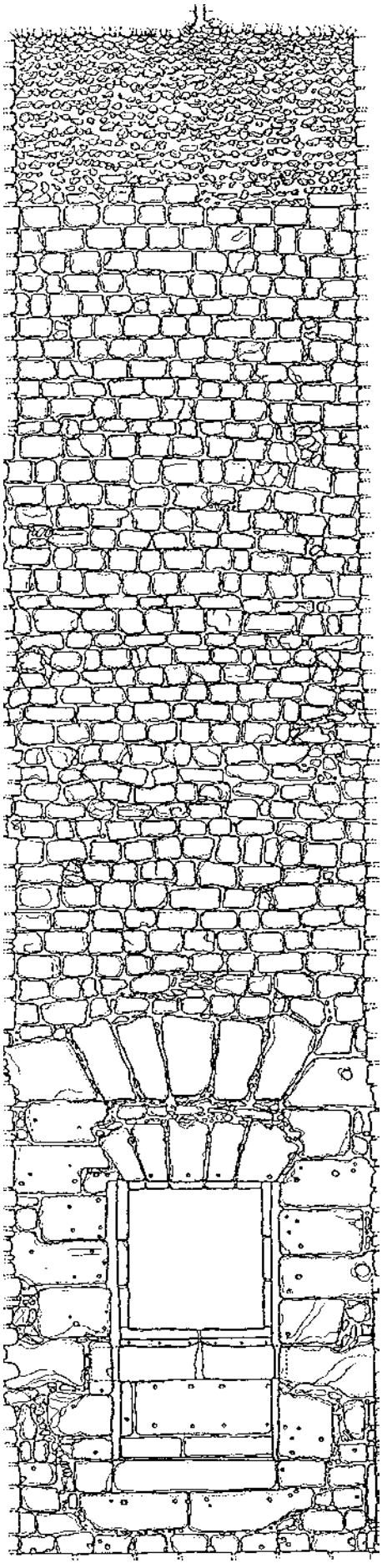
Granite chips mixed with limestone mortar.

OPUS VITTATUM in walls

Square blocks of equal height in horizontal rows.
These walls enclose an interior filling of opus caementicium.

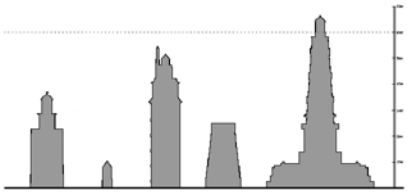
OPUS QUADRATUM surrounding openings

Parallelepiped blocks laid in horizontal rows: high quality blocks, perfectly squared. Also used in foundations for connection between external wall and ramp, and to make the four corners of the central section of the Tower.



Neither can we ascertain, from the studies of Bartoccini[2], the height of the Leptis Magna lighthouse in Libya. Judging by preserved remains, the Linterna de Augusto in Forum Julii, present-day Frejus (Provence-Alpes-Côte d'Azur, France), also on Mediterranean shores, may have had a height of 20 m.

Apart from the Tower of Hercules, there are records of other lighthouses on the Atlantic Ocean in Cádiz, Chipiona, Torre del Orden and Dover. There are no data available for the first two, but we do know that the no loner existing lighthouse of Boulogne (France), also known as Turris Ardens or Tour d'Ordre, measured 34 m. This height is similar to that of the Farum Dubris lighthouse in Dover (Great Britain) which in the present day preserves only the basement walls of the Roman stonework.



Height of Hercules Tower in relation to Hook, St. Catherine, Dover and Cordouan lighthouses.

Hook´s lighthouse

St. Catherine´s lighthouse

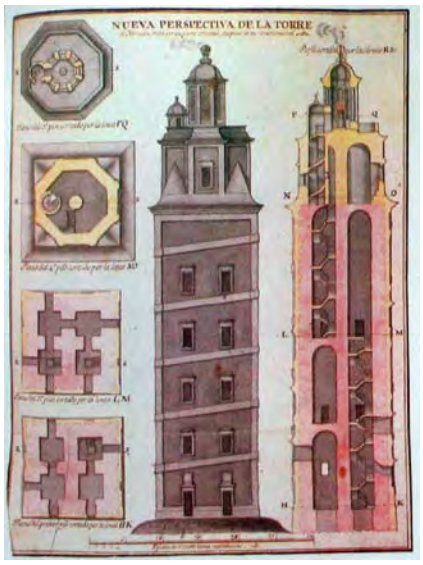
Hercules Tower

Dover´s lighthouse

Cordouan´s lighthouse

Nowadays, the Tower of Hercules has a height of 55 m of which 34 m correspond to the Roman masonry and 21 m to the restoration directed by the military architect Eustaquio Giannini. He was responsible for augmenting the Roman core with two octagonal bodies upon which the beacon was placed in 1806.

The lighthouse comprises three storeys each of a different height; 9.20 m, 9.60 m and 14.35 m. respectively. Each floor has a similar layout of four independent square chambers with sides measuring 2.70 m. Each one of these spaces is covered with a barrel vault. The dividing walls have a thickness of 1.5 m, the same width as the original perimeter walls of the Roman core. The walls are thicker nowadays, as on cladding the original construction with a shell of impeccable stonework, between 1788 and 1790, the Roman structure was covered and joined to this coating by means of perfectly fitting ashlars. This resulted in the width of the walls increasing from 1.50 m to the 2.10 or 2.15 m which they measure now.



Floor plans, elvation and section.
Eustaquio Giannini´s project.

Chambers vaults

18thC structure connected with Roman wall

Spiral impost in memory of the ancient ramp

[2] Sánchez, Terry, M. A., *Los faros españoles: Historia y evolución*. Madrid, Ministry of Public Works and Transport, 1991, p. 32

Communication between the chambers of each of the three storeys was originally in a transversal East-West direction and always in pairs, to avoid the four rooms on the same floor being connected with each other. This was in order to decrease the chances of fire spreading and at the same time, to improve resistance in the case of an attack. Entrance from the outside to each of these chambers was by means of the doors on the ascending spiral ramp, which encircled the core of the tower and provided access to its highest part. We may assume the ramp was used to transport cartloads of wood to keep the beacon fueled at night. The existence of an external ramp is also documented in the de Forum Julii [3] or Frejus lighthouse.

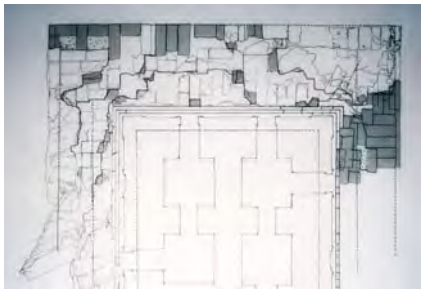
With the passing of time, the ramp slowly deteriorated and collapsed so that by mediaeval times it had all but disappeared. Nevertheless, its existence can be confirmed thanks to the 1991-1992 archaeological excavations that were carried out at the foot of the Tower and in which its foundations were discovered.

Almost all of the original Roman openings (doors and windows) were respected in the improvements carried out between 1788 and 1790 and so remain in the present day. While some no longer serve their original function or have been sealed, and others have had their light altered, they were nonetheless preserved and incorporated into the new building. The architect Eustaquio Giannini, using modern restoration criteria, introduced small schist slabs in the sections of wall which were altered, so that in the future these faces could be read and the reworked parts could be distinguished from those which had not been altered. These 'witnesses' are essential for a chronological interpretation of the Tower and a detailed analysis of its evolution.

The characteristic stonework that the Romans used in their building has also survived. The Tower's extremely strong, wide walls were formed by two parallel walls of stone arranged in horizontal courses of *opus vittatum* around an inner filling of *opus caementicium*, a mixture of granite pebbles with lime and sand mortar. This *opus caementicium* was also used to make the barrel vaults which cover each of the chambers and separate the three storeys that remain of the original structure.

The Roman builders turned to the use of *opus quadratum* in the jambs and the lintelled arches of the doors and windows that still survive from the ancient building. The quality of this carefully and perfectly squared stonework highlights the skill of the stonemasons of the era and their knowledge of an enviable technique. This same material was used in the foundations and the base of the outside wall to the ramp, as can be seen in the excavation at the foot of the monument. We also know that *opus quadratum* was employed for the four cornerstones of the central body of the tower, as testified by the plans and drawings prior to the 18th century improvements.

Current state of the excavation with the mark of the ramp.


Excavation plan. P.Latorre / L.Cámara

Wall opening sealed off during 18thC reform

Detail of the black slabs between roman walls and 18thC reform.

Opus cuadratum detail.

[3] Sánchez, Terry, M. A., Los faros españoles: Historia y evolución. Madrid, Ministry of Public Works and Transport, 1991, p. 33

OPUS CAEMENTICIUM in Vaults

Granite chips mixed with limestone mortar.

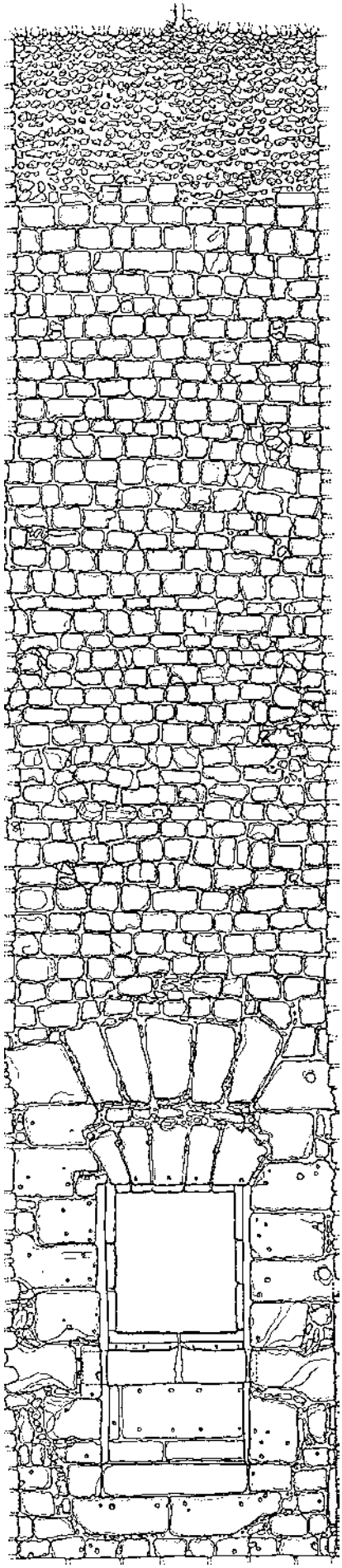
OPUS VITTATUM in walls

Square blocks of equal height in horizontal rows.

These walls enclose an interior filling of opus caementicium.

OPUS QUADRATUM surrounding openings

Parallelepiped blocks laid in horizontal rows: high quality blocks, perfectly squared. Also used in foundations for connection between external wall and ramp, and to make the four corners of the central section of the Tower.



Opus vittatum

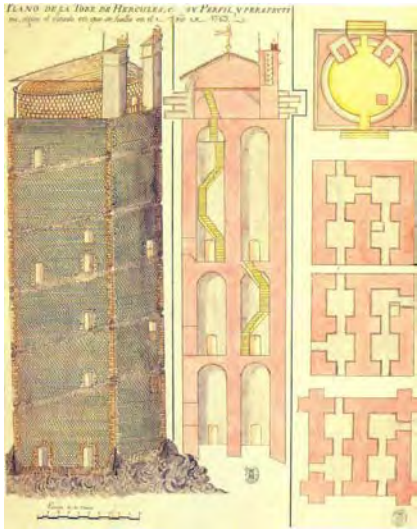
Opus quadratum

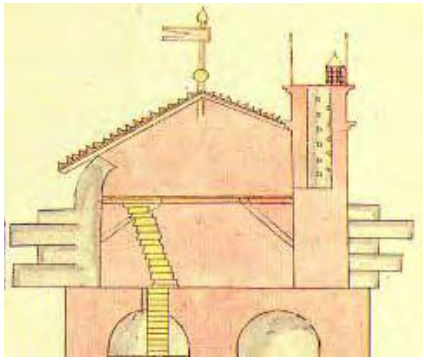
Opus caementicium

The destruction of the ascending ramp that spiralled around the outside of the Tower entailed the disappearance of the access to the upper part of the lighthouse and to the different chambers that were located there. Consequently another system had to installed for providing the lighthouse with fuel, so that it could continue to carry out the function for which it had been built. The solution was the construction of an internal staircase which communicated the base of the Tower with the lantern, although some of the Roman vaults had to be bored through in order to do so. This staircase was originally a simple, wooden structure but in 1684, the Duke of Uceda, as Captain-General of Galicia, ordered its reconstruction and in 1788 it was replaced by one made of stone, with wooden banisters. In 1905, Salvador López Miño, head of the Office of Public Works of A Coruña, replaced the wooden banister with a stone one with a carved balustrade, for reasons of safety, but when the monument was restored in 1991, this was in turn replaced by the current one, made of bronze.

The steep stairs lead us up the inside of the Tower to the point where the Roman structure ends. Here we find the two octagonal bodies which were added during the extension directed in 1788 by Eustaquio Giannini. These were placed on top of the existing masonry, maintaining the paving of large granite ashlars which could well pass for the original floor which topped the Roman tower, where, in past times, the rotunda that housed the lamp stood. In this paving we can also make out the marks of a structure of rectangular section that rested upon it and which could be from one of the two small towers that were raised in 1684, during the Duke of Uceda's improvements, to house the lamps which illuminated the ocean.

The main objective of the lighthouse restoration inspired by the Maritime Consulate and directed by Eustaquio Giannini in 1788 was to adapt the building to the latest techniques of maritime signalling. To this end, the crowning structure of the tower was replaced by two octagonal bodies, the second of which was conceived of as a lantern. With these alterations, the original height

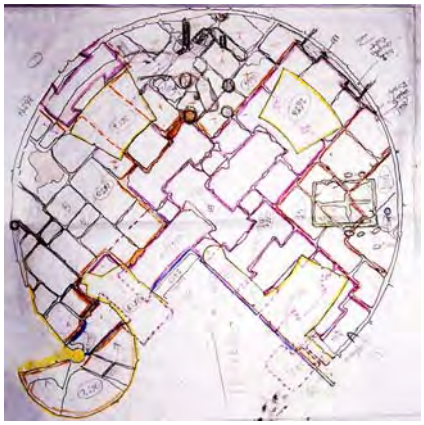



Etching of the Tower before E. Giannini´s restoration. Spanish National Library.

Internal staircase

of the building increased by 21 m, giving a total height of 55 m.

The first body contains the so-called Giannini room, an octagonal chamber with four radial pillars that leave space for an annular corridor and a bench. The room is covered by a false cupola. In one of these pillars, the architect himself left an inscription which states “DIRIXIÓ ESTA OBRA EL THENIENTE DE NAVÍO INGO ORDINARIO DE MARINA D. EUSTAQUIO GIANNINI”. (This work was directed by Naval Engineer Lieutenant Eustaquio Giannini) It is paradigmatic that the engineer wished to perpetuate his name in the collective memory and chose a solution similar to that adopted by the architect Gaius Sevius Lupus who left his commemorative inscription at the foot of the Tower.



Interlinking slabs in ‘double T’.
Pablo Latorre

Otogonal body

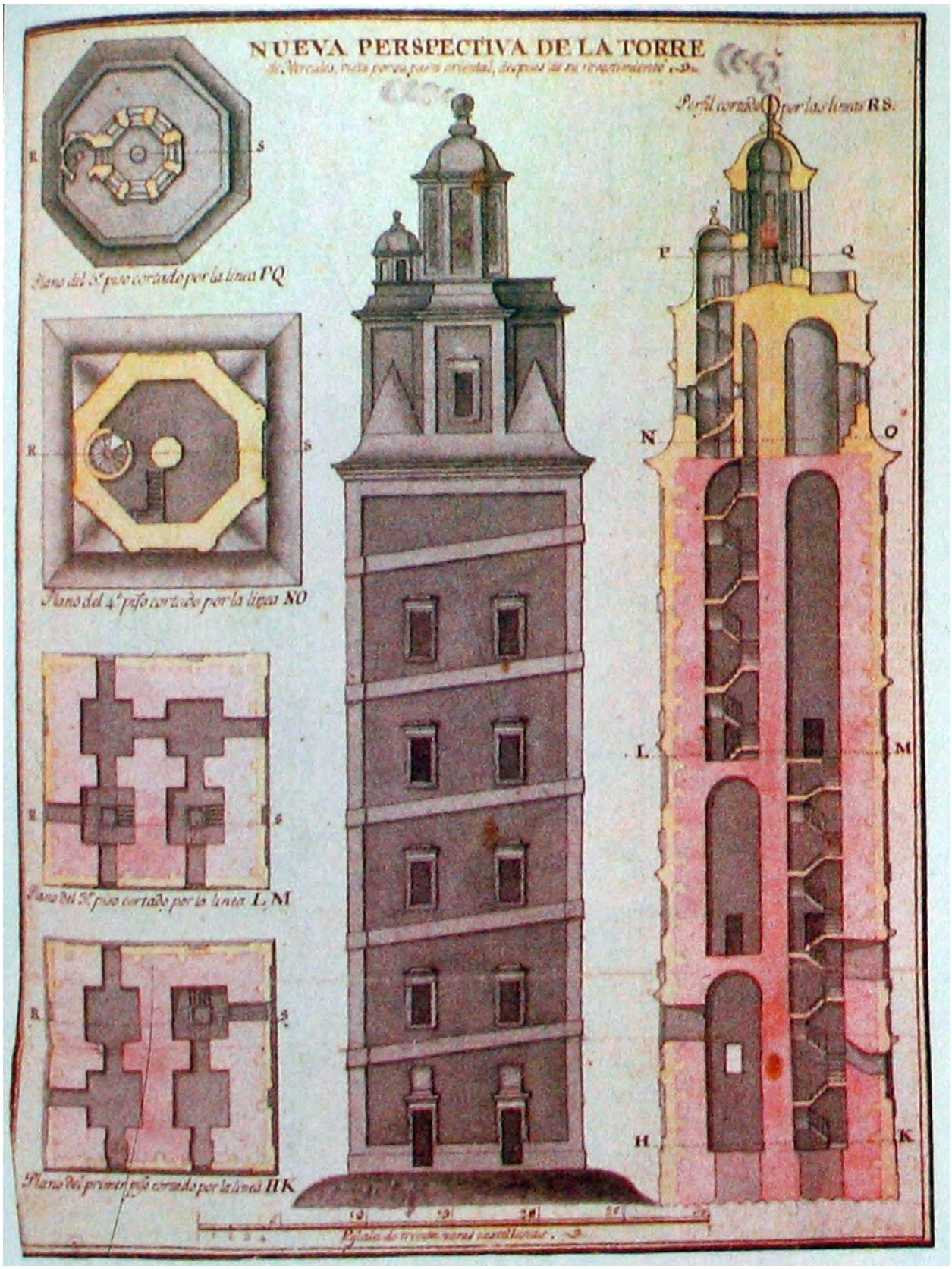
Cornice detail. P.Latorre / L.Cámara

Giannini´s room.

Giannini´s inscription.

From this octagonal chamber, a spiral staircase leads us to the second body. Nowadays this consists of a closed chamber with a false cupola that rests on four pillars that have been bored through to create a peristyle with a bench. Originally, this second body was conceived of as a lantern, and there were large glass windows in each of the faces and a small dome crowned by a sphere, which functioned as a chimney. This structure was altered a few years later after the realization that the coal lamps were very expensive and the light which they produced was insufficient. For this reason, the Maritime Consulate decided to modify the illumination system and adapt the building to house the new lamp. The new lamp used a rotating lens assembly, brought from London, which would project a much stronger beam of light. In order to install the machinery the small dome of the lantern had to be taken down and a small stone ledge had to be built. Upon it was placed a glass beacon with a metal structure topped by a copper dome, with chimney and wind-vane on the side. For access, a second, smaller, spiral staircase was built that goes up through a cylindrical body. Seen from outside, the staircase gives the impression of a staggered structure of circular section with the peculiarity of having been decorated with an ascending spiral impost in memory of the ancient ramp that rose up the elevation of the Tower.

Staircase to the lantern.

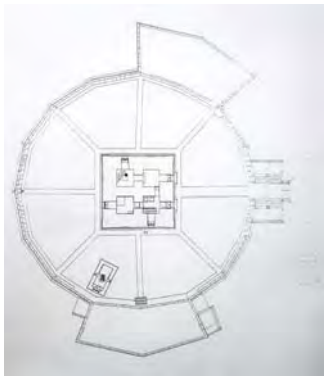


Floor plans, elevation and vertical section with colours of Hercules Tower in a José Cornide Saavedra´s manuscript, 1792, Real Academia de la Historia. Madrid

With these renovations, the old lantern lost its original function and so the large windows were sealed off and the room which had been designed to house the lamp came to be the resting room of the keepers.

The engineer in charge of the restoration was José Giannini, brother of Eustaquio, who in addition to building the beacon, worked on the platform surrounding the base of the Tower between 1799 and 1806, although he did not complete it. It was at this time that the commemorative inscription of Gaius Sevius Lupus was preserved by means of a small stone building and two bronze plaques were also installed above the entrance doors to commemorate the rebuilding of the Tower during the reigns of Carlos III and IV. These were penned by the academic José Cornide Saavedra, a truly enlightened scholar who dedicated a good part of his life to recovering the memory of the Tower of Hercules.

Design of the Tower in 1805



Plataforma sobre la que se asienta la Torre. Pablo Latorre

Commemorative plaques of Tower rebuilding

The access to the Tower of Hercules from the Promenade is via a pedestrian path that ascends the hillock of Punta Eiras until reaching the foot of the imperial double staircase that leads directly to the platform. This way is the old road which was used to transport wood, oil or coal for the lighthouse lamp, the same which in 1865 the architect Faustino Domínguez Romay joined with the Campo de la Estrada, converting it into a recreational walk for the people of Coruña.

Old access road

Current pedestrian path

To celebrate the bicentenary of the restoration of the Tower of Hercules (1790-1990), the Spanish Government Ministry of Public Works and Planning and the City Council of A Coruña signed an agreement to renovate the building and improve its surroundings. It was a very ambitious project, including a diagnosis of the lighthouse and a study of its pathologies, modernizing the electrical installation, replacing the metalwork in the windows with security glass and replacing the iron elements with bronze ones.

The commemorative plaques of the 18th century alterations over the access doors to the Tower were included in the restoration. Francisco Leiro, Galician sculptor of international fame was contracted to design some doors decorated with reliefs that alluded to the history and legends that surrounded the monument. It was also at this point when the Tower's platform was cleaned up, ridding it of unsightly buildings and taking the opportunity to excavate a wide area at the foot of the lighthouse. The interest of the findings justified their being put on display in a museum for the benefit of those who came to be visit the tower. A small museum building was built on the platform itself, concealed in the slope that leads to the excavation and has served as a subterranean entrance to the monument by an old tunnel that the lighthouse keepers have used since 1956 as it connected their houses with the lighthouse.

Current windows

Access doors to the Tower. F.Leiro

Current banister. P.Latorre / L.Cámara

View of the excavation

Bottom of the Tower during excavations. P.Latorre / L.Cámara

Looking round the excavation site, visitors can see the large ashlars that formed part of the Tower's foundations, as well as the marks of the ramp and the outside wall that went round the present-day core of the Tower. There are remains of a perfectly finished cornice, that probably belonged to the primitive top of the lighthouse, and a series of south-facing mediaeval buildings from when the Tower of Hercules was used for defence purposes.

Primitive top of the lighthouse´s cornice. P.Latorre / L.Cámara

Begining of the exterior ramp.

Mediaeval buildings

Marks of the ramp.

The development of the Tower's immediate area (core zone) was foreseen In this same project and manifested in the provision of car-parking facilities; traffic signals; modernization of the roundabout as a transition zone between the Tower and the surrounding area; a pedestrianized area with pavements and street lighting to keep motor vehicles away from the immediate vicinity of the monument and a planning study for the surrounding area.

View of the Tower's immediate area (core zone)

The restoration project foresaw the creation of an archaeological park in the Península de la Torre, but this idea was abandoned and in its place an open-air museum was created: providing just the sort of green zone for recreation and leisure that A Coruña lacked. In the core zone we therefore have a sculpture park with works by well-known artists such as Francisco Leiro, Pablo Serrano, Silveiro Rivas, Javier Correa, Manolo Paz and Isaac Díaz Pardo, among others.

A. The sculpture park that surrounds the Tower of Hercules.

This open-air museum extends over Punta Eiras, Punta Herminia, O Acoroado and el Cabal de Pradeira, over 47 ha, therefore taking up part of the core zone. The sculptures are set out on the green space that surrounds the Tower, perfectly in keeping with the monument itself. The topics chosen by the artists can be grouped into various themes:

Surrounds of the Tower

Mythological tales that link the founding of the Tower with Hercules himself or with Celtic caudillo Breogán, linked by 19th century historiography to the origin of the monument itself.

References to the world of the sea, navigation and routes talk of the nautical vocation that is intrinsically linked to the past of the Galician people since the beginning of their time.

A number of pre-existing elements in this sculpture park are explained in their historical context by means of information panels that highlight their value within this setting. Among these we can

highlight el Monte dos Bicos, the Moors cemetery and the signals that aid navigation.

El *Monte dos Bicos* is the oldest preserved testimony to the presence of man on the peninsula of the Tower. It is a prehistoric site located on Punta Herminia, facing the Tower of Hercules, on the highest part of the peninsula and on a headland which overlooks all of the Artabran Gulf. Petroglyphs have been discovered on one of its rocky outcrops although interpreting them is a complex task as the representations are spread anarchically over the stone, combining geometric forms with crosses and signs. According to archaeologists, these forms could date from the Iron Age. Next to this large rock, another smaller one was found which has been taken to the Archaeological Museum for protection, where it can be seen today. Both rocks are irrefutable witnesses to the presence of man in this area, and to the symbolic value that these lands must have had for the inhabitants of north-west Spain before the arrival of the Romans.

Petroglyphs in Monte dos Bicos

The Moors Cemetery, is located on the Cabal de Pradeiras, very close to the Campo da Rata. It has a rectangular ground plan, delimited by a closing wall and the only entrance is by means of a portal with the characteristic horseshoe arch. This leads into a small patio with a garden that has a fountain as its centrepiece. In one of the corners of the garden there is a chapel covered with an arched dome, decorated with glazed tiles.

Moors Cemetery / La Casa de las Palabras

It was built during the Spanish Civil War (1936-1939) for the burial of Muslim soldiers who did not want to be interred in Christian cemeteries. The bodies of these soldiers remained here until they were moved to the Cemetery of San Amaro in the 1960s. From then on the Moors cemetery went into disuse, but it was not demolished and slowly became covered in undergrowth. It was all but forgotten about until the 1990s when the environment of the Tower was improved, and the Moors Cemetery was recovered.

Access door

In 2006, the City Council of A Coruña put forward an interesting project for this edifice – the creation of La Casa de las Palabras, a symbol of dialogue between civilizations. The whole complex was restored and panels of tiles were erected, on which a selection of fragments of classic texts related to the city of A Coruña and the Tower of Hercules are repeated in different languages.

This project was directed by the architect Juan José López Heredia and defrayed by the Deputy General Directorate of Historical Heritage, dependent on the Spanish Government Ministry of Culture, with the collaboration of the City Council of A Coruña.

Interior

Apart from these remains of archaeological and historical interest, on the north of Punta Eiras, at the foot of the Tower on the cliff, there are two foghorns that are used to warn of the dangers of the coast. One is an electromagnetic vibration siren that works by beeps, built in 1973, and the other a radio lighthouse that began to function in 1977.

Sirena y radiofaro Siren and radio lighthouse

As these are spread out over an area of 47 ha, a map has been produced, showing their location:

Portrait of King Carlos III

The first two sculptured pieces are located in the Tower itself. On the access to the platform, next to the imperial staircase, is a Portrait of King Carlos III, the monarch who reigned when the remodelling of the Tower was begun. The model for the sculpture was taken from Francisco de Goya's famous portrait of the king in hunting attire, accompanied by the dog which rests at his feet.

The second piece is The doors of Hercules, *Francisco Leiro*, (Vilagarcía de Arousa, Pontevedra, 1957). Leiro was entrusted with constructing the bronze doors that give access to the Tower and a sculpture of Hercules that is at the entrance to the excavations.

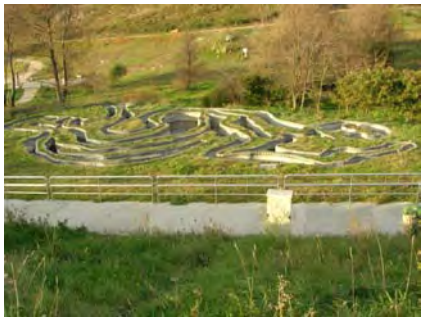
The decoration of the two doors was inspired by the legends and myths that surround the monument. On each of the doors there is a reproduction of the Tower's ascending spiral etching that serves to demarcate the scenes. The scenes are based on tales from the *Historia de España* by King Alfonso X 'The Wise' and recreate moments of Hercules' battle with Geryon: when the hero cuts off the giant's head or when he entrusts Crunia with keeping the lighthouse. There are images of the hypothetical reconstruction of the Roman lighthouse, based on Cornide Saavedra's proposals, and wood-laden carts being pulled up the external perimeter ramp.

The image of Hercules shows the hero raising his club to strike a blow to his enemy. The statue is carried out in bronze, wood and leather, a combination of materials that heightens the sense of realism and adds to a feeling of movement.

The Doors of Hercules

The core zone of the Tower is an area designed for the leisure and recreation of the people who come to the monument; the banks that slope down to the cliffs where the sea crashes are covered with small footpaths that go round the whole of the peninsula and offer visitors spectacular views of both the Tower and the rough, rugged coast where the Atlantic waves break. Various routes can be chosen thanks to this network of paths and signposts which guide walkers along their way as they discover the sculptures.

We begin our walk next to the Cala de la Torre, at one of the edges of the core zone perimeter, on the west-facing slope.


Battle between Hercules and Geryon

Battle between Hercules and Geryon. (Work based on an abstract painting of the same title), *Tim Behrens* (London, 1937) and *Xosé Espona* (A Coruña-España).

After three days' fighting, Hercules beheaded Geryon and buried his head on the same spot. Later he made a bonfire to honour Zeus (Jupiter), and that bonfire was the origin of the current-day Lighthouse.

Artabrans

Artabrans*, Arturo Andrade* (Ourense-España, 1956).

Three figures each seated on a low pedestal represent the Artabran people: a woman, a sailor and a warrior. These were the components that made up the society of the era and each figure has attributes identifying his/her role. The group sculpture is made in white granite and bronze, and the postures of the figures favour a dialogue between them.

Five-pointed menhir

Five-pointed menhir, *Ramón Miranda* (A Coruña-España, 1957).

A vertical, totemic structure in bronze situated at the foot of the Tower. Each level of the sculpture is treated differently and one can gradually make out a series of symbols. This menhir could be a reference to the peoples of the sea. Symbolism is also present in a series of inscriptions that allude to artistic manifestations of primitive cultures. The totem is an element that joins all the races of the Earth, but that also rises towards the heavens, towards the unreachable.

Guitar

Guitar, *Pablo Serrano* (Teruel-España, 1908-1985).

This piece of work pays homage to two artists as Pablo Serrano had designed between 1983 and 1985 a series entitled "guitars or divertimentos with Picasso, the guitar and cubism". This collection that recreated different aspects of spatial development of a guitar, had a three dimensional approach. Pablo Picasso spent some of his childhood in A Coruña where he began his artistic career and, as student of the School of Art and Trades, painted and drew the Tower. Toba Blanco, in charge of the sculpture park project, wanted to link these events, thus paying homage to both artists. Pablo Serrano passed away in 1985. Guitar, effectuated in Corten steel, has simple volumes with clear reference to a cubist guitar.

Wind Rose, *Javier Correa* (A Coruña-España, 1952).

Situated at the foot of the tower where it can be walked across, this colourful, circular mosaic of 25 metres in diameter is made in granite, slate and glass. Different Celtic icons are represented, making up a giant Wind Rose.

Wind Rose

This piece of work alludes to the seven Celtic societies, and each one is assigned an image based on the emblems of local tradition. The use of colour is completely intentional and the blue background serves to blend the 'rose' with the sea, as a prolongation of the ocean, creating an atmosphere of continuity.

Fish Skeleton, *Enrique Saavedra Chicheri* (Madrid-España, 1963).

This work carried out in 1998 belongs to the second phase of the sculpture park. It is situated in the Furna dos Touciños and is suspended over the cliffs at the foot of the Tower by steel wires. It is a sculpture that moves with the wind as if it were an organic form, the fantastical recreation of the skeleton of a fish that has chosen these abrupt, rocky lands at the end of its life.

Fish Skeleton

Guardians, *Soledad Penalta* (Noia, A Coruña-España, 1943).

This work of art is situated on the slopes of the hill where the Tower stands. It is a conceptual work; in which conceptual materials were also used. The three heads of Geryon are represented in a magnificent combination of three sculptures bared to the vicissitudes of time. Thick multi-facetted Corten steel plates allude to the guardian of history - the Tower which represents the past and, at the same time, the vocation of the future. These guardians appear to be silent travellers who have stopped still for an instant.

Guardians

Ara Solis, *Silverio Rivas* (Ponteareas, Pontevedra-España, 1942).

The Sun, at the end of the day, sank into the sea in Finisterre, where it had its altar, the Ara Solis. Many pilgrims travelled there, including Décimo Juno "el Galaico", who in 150 B.C. did not want to return to Rome without having witnessed this spectacle.

Hydra of Lernea, *Fidel Goás Mendes*

For having killed his wife and children, the Oracle at Delphi ordered Hercules to serve King Eurystheus, who set him twelve labours. The first was to slay the Nemean lion and the second to slay the Hydra of Lernea, a nine-headed animal with one immortal head. Upon cutting off each of its heads, Hercules found that two grew back and so he called upon his nephew Iolau to use a burning firebrand to scorch the neck stumps after decapitation, leaving the hydra dead. Hercules placed its one immortal head under a great rock on the sacred way between Lerna and Elaius.

Ara Solis

Breogán (Celtic Chieftain), *José Cid* (Ourense-España, 1946).

This monumental white granite sculpture of a warrior is located at the beginning of the access ramp that leads to the Tower. Breogán was a mythical Celtic warrior who, apart from being one of the heroes of Ireland, was also ascribed with the founding of A Coruña. In this unique piece only the fundamental physiognomic features are accentuated. In addition to the shield, as a symbol, he holds a sword in his hand.

Hydra of Lerna

Charon, *Ramón Conde* (Ourense-España, 1951).

In another of his labours, Hercules was to go to Hades (the ruler of the Underworld) and bring back the hound Cerberus which guarded the entrance, impeding the return of those who entered. To reach Hades, Hercules needed the help of the ferryman Charon, who charged an obolus to all those who wished to cross lake Estigia.

Breogán

Charon

Conch, *Moncho Amigo* (A Coruña-España, 1952).

This work is the fantastical recreation of an enormous mollusc shell, a gigantic horn of plenty, guardian of the sounds of the sea. Made in Corten steel, it s located very close to the sea, on the edge of Punta Herminia, so as to capture all of the sea's vibrations. It has liberty of movement and so turns and moves with the wind. The sculptor wished to give his work a special meaning, with an emphasis on fun rather than intellectual or reflective pursuits rather than searching for a mythological object. The Conch can be clearly observed from the foot of the lighthouse.

Conch

The Golden Cup, *Pepe Galán* (A Coruña-España, 1955).

Another of Hercules' labours was to capture the magnificent cattle of king Geryon, which involved travelling "beyond the human universe". To do so, he had to ask Helios, the Sun, for the golden cup he used each night to sail across the sea from west to east, from where the next day arose again.

The Golden Cup

The stone ship (Hercules on the ship of the Argonauts), *Gonzalo Viana* (Bilbao-España, 1955).

Hercules accompanied Jason on his journey to Colchis to bring back the golden fleece, although he did not finish the trip as he stayed on an island searching for his friend Hilas, while Jason continued his journey.

The stone ship

Monument to those shot during the era of Franco, *Isaac Díaz Pardo* (Santiago de Compostela, A Coruña-España, 1920).

This monument is located on the Campo da Rata and commemorates those shot during the dictatorship of Francisco Franco. It consists of cartouches which have been engraved with a poem by Federico García Lorca and the names of those who were executed in this place, symbol of political repression.

Menhirs for Peace, *Manolo Paz* (Cambados, Pontevedra-España, 1957).

This work is also entitled *Family of Menhirs* and is a group sculpture of twelve pieces. These represent the mother and father (the tallest stones) and the other smaller, more varied ones are the children. The work is situated a long way from the Tower, near to the coast and the Moors cemetery. The twelve menhirs have a strategic position. Each one has an opening in it through which the Tower and the sea can be seen at sunset. It is an interactive sculpture; one can walk into and around it and feel the energy. A menhir is a rough-hewn standing stone that represents masculinity and destiny and they also recreate the rite of the time wheels which turns eternally. This work can be seen from the Tower and the geometric form appears elliptic although in actual fact the stones form a circle.

Monument to those shot during the era of Franco

B. Buffer zone.

The buffer zone extends over an area of 142.49 ha. between Punta del Orzán and the Ensenada de San Amaro. In this area there are a series of significant elements which because of their interest deserve to be treated individually.

Menhirs for Peace

Finisterrae Aquarium. The House of the Fish was created by the City Council of A Coruña and inaugurated 5th June 1999. Situated on the Punta del Orzán, next to an old shellfish bed it is an interactive centre of scientific information covering aspects of marine biology, oceanography and the sea in general. It aims to promote knowledge of the ocean and teach respect and care for the marine medium, and contribute to scientific knowledge of sub-aquatic life.

In the proximities of the old quarry is the *Monte Alto Institute of Vocational Training*, a State Education centre, dependent on the Galician Government Ministry for Education. It is situated on the Promenade (Francisco Vázquez Avenue), in front of the lighthouse, on the other side of the cove of the Tower. It is a two-storey building from the late-seventies which has a sports pavilion and sports fields.

In the area of the old quarry we also find the tram sheds. When The City Council of A Coruña built the Promenade that traces the city's peninsula, it chose to provide inhabitants and visitors with a non-polluting, sustainable form of transport. The means chosen was the tram, thereby recovering an old tradition that had been lost in the early sixties, when the last trams stopped working. The sheds were built in the quarry of the Tower and are used to house the trams during the winter; in this season the trams only run along the Promenade at weekends.

Finisterrae Aquarium. The house of the fish

After this we come to the plot of land which City Council of A Coruña exchanged with Penal Institutions in order to take over the old prison.

Old Jail or Provincial Prison of A Coruña. Located on the Promenade (Francisco Vázquez Avenue). It was designed in1925, by Juan Álvarez de Mendoza, architect of the General Directorate of Prisons, but the plans were retouched by the municipal architect of A Coruña, Pedro Mariño. It was in use from 1925 until the nineties.

Monte Alto Institute of Vocational Training. Tram sheds.

The floor plan of this building is in the shape of a cross that arises from the intersection of the cell-blocks that converge in a large circular rotunda, which houses the chapel, the archive and the cells set aside for distinguished inmates or political prisoners. The principal façade is lower. The administrative offices and the visiting area are located in this part of the building. The complex is encircled by a very high wall that isolates it from the surrounding environment.

Álvarez de Mendoza may have based his model on The Barcelona Model that was designed by José Domenech and Salvador Viñals and inaugurated in 1905.

Municipal Ciudad deportiva de La Torre. Situated between the Avenida de Navarra and the Carretera de los Polvorines. A municipal sports complex with a covered sports centre adapted to all types of trials and open-air installations for football and frontón. Golf-lovers can also enjoy the 'Tower' golf course.

Provincial Prison.
Middle of 20th century.

Polígono de viviendas de Monte Alto, is situated on a small peninsula located between Acoroado and the Ensenada de San Amaro, at the entrance to the port of A Coruña. Traditionally this was an area dedicated to fishing activities where sailors from the nearby neighbourhood of Monte Alto worked. In the Modern Ages the Fort or Castle of San Amaro was erected in this zone, which, along with the Castles of San Antón, San Cruz and Valparaíso, made up the city's defence system.

In the seventies and eighties this area underwent intense development and most of the buildings belong to this era. Blocks of six or eight storey flats with the same characteristics give unity to the neighbourhood. Being lower than Punta Herminia and Punta Eiras, the visual impact that these flats could have on the Tower is palliated by the slope of the land.

The jail, actually.

Today the *barrio de Adormideras* neighbourhood opens onto the sea, thanks to its beaches (cove and beach of San Amaro), the nautical activities of the nearby House of the Sear (diving, fly fishing, sailing, etc.), and the paths and tracks that set off from the Promenade and circle the neighbourhood to reach the cliffs where the wild sea crashes incessantly.

Jail´s main façade.

Hotel Eurostars Ciudad de La Coruña. 4 star hotel, belonging to the Eurostars chain, situated at Juan Sebastián Elcano no. 13, on the Adormideras estate, very close to the Campo da Rata and next to the beach of San Amaro. This seven-floor building, dating from the late 1980s, maintains a certain balance with the other buildings which comprise the neighbourhood.

The buffer zone surrounds the neighbourhood of Adormideras and rises to the Promenade until the crossroads with the road de la Torre, advancing towards the Ronda de Monte Alto and including the back of this road. Here we find a series of recently constructed flats that serve as a screen in an attempt to normalize the slightly anarchic aspect of the buildings which were constructed on the North face of Monte Alto in the sixties and seventies.

Municipal Ciudad Deportiva de La Torre

A series of blocks of flats that belong to a single property developers are currently under construction and, as specified in the Special Plan of Planning, Protection, Conservation and Improvement of the Peninsula of the Tower, have required the approval of the Galician Government's General Directorate of Heritage in order to be built.

Tower´s Park.

Finally, returning to the shore, in the area of the ensenada del Orzán we find *As Lagoas*, another residential estate, that is recognized in the Special Plan of Planning, Protection, Conservation and Improvement of the peninsula of the Tower as a 'zone of tolerance'.

Years ago, the area of As Lagoas used to be the fishermen's neighbourhood, with its traditional single storey houses. In the sixties this area, like many others, underwent intense property development that erased all traces of those modest houses. The construction of the Promenade in the mid-late nineties changed its appearance, and a series of high-quality buildings were built on the edge of the buffer zone thereby improving the appearance of the area and contributing to its social regeneration.

Barrio de Adormideras

2.b. History and Development.

A. The Immaterial Heritage Relating to the Tower of Hercules.

The Tower of Hercules possesses a rich immaterial heritage based on legends connected to its foundation and history. These legends have not always been appreciated or analysed as products derived from the societies which created them but have, nevertheless, had an extraordinary relevance for historiography which, throughout the 16th, 17th, 18th and 19th centuries, has attempted to explain its origins. Of all these legends, three stand out; that of Breogán of Irish origin, that of Hercules from the Greco-Latin tradition and the tale of Trecenzonio which combines both traditions.

Two writers have concerned themselves with exhaustively analysing the importance of these tales, one is José María Bello Diéguez[1] and the other is Francisco Javier González[2], who, via their writings, have attempted to publicise this rich immaterial heritage.

A. 1. The Legend of Breogán.

It has its origins in the *Leabhar Ghabala* or the *Book of Invasions*[3], which is a collection of earlier Irish legends put together in the 12th century. According to this source, Breogán, son of Brath, was the Celtic leader that subjected the Spanish tribes. After conquering the whole territory, he founded the city of Brigantia (La Coruña)

[1] Bello Diéguez, J. M., "la Torre de Hércules y la leyenda", in *Ciudad y Torre. Roma y la Ilustración en La Coruña,* A Coruña, Ayuntamiento de A Coruña, 1991, pp. 145-149; Bello Diéguez, J. M. *La Coruña antes de Roma. Prehistoria.* Perillo-A Coruña, Vía Láctea, 1994; Bello Diéguez, J. M., *La Coruña Romana y Alto Medieval. Siglos I-XII,* Perillo-a Coruña, Vía Láctea, 1994.

[2] González García, F. J., *Hércules contra Gerión. Mitos y leyendas de la Torre de Hércules (I-II).* Perillo, A Coruña, Vía Lactea & Concello de A Coruña, 1997-1998.

[3] "Brath, hijo de Death, tuvo un hijo en España llamado Breoghan. Fue criado hasta el momento en que pudo llevar armas. Después de cierto tiempo, Brath murió y Breoghan ocupó el principado… Posteriormente una ciudad fue fundada por Breoghan en España, se llamó Brigantia y también edificó una torre en frente de la ciudad, la cual se llamó Torre de Breogham. Una agradable y deliciosa morada además de ser un lugar para mirar y vigilar… Sucedió una vez que cuando ITh se encontraba en lo alto de la torre de Breoghan, contemplando el mundo a su alrededor, le pareció ver una sombra parecida a la forma de una elevada isla lejos en la distancia…" *Leabhar Ghabala or the Book of Invasions.*

and built a tower along with it, which he named the Tower of Breogán.

Following the death of the leader, the succession passed to his son Ith, who, upon seeing Ireland from the top of the tower, set off to conquer it. However, his plan failed and he died. His remains were returned to Brigantia where he was buried.

Ith was succeeded by Mil, who set sail from Brigantia and arrived in Ireland where he defeated the Thuatha-Dé-Dannan and conquered the land.

According to the nineteenth-century historiography, this legend arrived in Galicia during the 17th century by way of the "Irish Schools" of Santiago de Compostela although it would not become widely-known until the 19th century at the hands of the Celtic wave headed by Murguía and Pondal. In Ireland, however, the tale was more popular.

A. 2. The Legend of Hercules.

Hercules is the best-known Classical hero of Greek mythology. He was the son of Zeus and of a mortal named Alcmena, who was seduced by Zeus when he passed himself off as Amphitryon, her husband. Hercules was the fruit of this encounter and the last of the heroes fathered by Zeus. This infidelity angered Hera, who maintained a violent confrontation with Hercules for many years.

Hercules and the Hydra of Lernea. A. Pollaiolo, 1480

When Hercules was an adult, Hera enraged him so that in his fury he killed the children he had had with Megara and his two nephews. After this execrable act, he went to the Oracle of Delphi so that the sibyl would tell him what he should do. She ordered him to put himself at the service of Eurystheus, king of Tirinto and Mycenae, who set Hercules a series of tests which he had to pass in order to gain immortality. Initially, ten tasks were set but this became twelve when Iolaus, Hercules' nephew helped him to defeat the Hydra of Lerna and to clean Augeas' stables. When Eurystheus found out, he increased the number of tests, which are known as the Twelve Labours of Hercules and which make up some of the most popular episodes of Greek mythology, such as the struggle with the Nemean Lion and the guardian dog Cerberus. The tenth labour is that in which Hercules confronts Geryon to steal his cattle to give to Eurystheus.

Hercules and the guardian dog Cerberus. F. Zurbarán, 1634

The myth of Hercules and Geryon was taken up by various authors, such as Hesiod (8th-7th century B.C), Apollodore (1st-2nd century A.D) [4] and Diodorus Siculus (1st century B.C), who offer us the oldest accounts. Of these, we shall take the latter as a reference point as it is the one which offers the most detail. According to this author, "Eurystheus set him the tenth labour of bringing him the cattle of Geryon which grazed in the regions of Iberia bordering the Ocean. Hercules perceived that this task needed a great deal of preparation and implied many difficulties so he got together and considerable amount of arms and a large number of soldiers as was appropriate for an expedition of this type. For it was known over all the inhabited world that Chrysaor,

[4]There is a problem in dating the work by Apolodorus. See González García, F. J., *Hércules contra Gerión. Mitos y leyendas de la Torre de Hércules,* A Coruña, Via Láctea Ed. 1997, p. 19.

who had received this name as a result of his wealth, was king of all Iberia and that he had three sons that fought by his side and that stood out due to their physical strength and to their brave deeds manifested in acts of war. But Hercules faced up to the dangers with the same brave spirit which he had shown in the other feats that he had performed before that moment. He got an army together and brought it to Crete from where he had decided to set sail as this island is especially well situated for the departure of expeditions to any part of the inhabited world..."[5]

From Crete he headed to Libya, where he confronted, and defeated, the giant Antaeus and turned the region into a habitable land. Then he went on to Egypt where he killed the king Busiris and then to Gades (Cádiz – Spain) where, to commemorate his bellicose campaign, he erected the "Pillars of Hercules" in the Straits of Gibraltar, one in Africa and the other in Europe, to mark the end of the known world, the "non plus ultra". The construction of these pillars should be understood as just one more feat of engineering among the many that the hero performed during his many travels.

This episode of the "Pillars of Hercules" would have enormous significance in Spain from the beginning of the reign of the Habsburg dynasty due to the fact that the Emperor Charles V, as a Renaissance humanist, resorted to the myth of the Classical hero in order to create his allegorical image and to present himself to the world as the new Hercules of Christianity. From this time on, the "Pillars" came to be part of the image of power itself and, accompanied by the motto "PLUS ULTRA", against the Latin "NON PLUS ULTRA", they would be incorporated into the Emperor's coat of arms as emblems symbolising the conquest of the unknown from the discovery of the New World. From that moment to the present day, the "Pillars of Hercules" have formed part of the Spanish coat of arms.

Hercules and Antaeus. A. Pollaiolo, 1480

Medal of the emperor Carlos V (1537). On the back, the imperial shield, flanked by the Columns of Hercules, with a two-headed eagle crown and the Golden Fleece

Coin from the reign of the emperor Carlos V, from the mint of Milan. It shows the Columns of Hercules with the motto "PLUS ULTRA"

Constitutional shield of Spain, flanked by the Columns of Hercules and the motto "PLUS ULTRA"

Continuing with the narration of the myth, Hercules crossed the Iberian Peninsula[6] from Cádiz in search of Geryon, the son of Chrysaor, the King of Eridia, who possessed the herds of cattle that the hero wanted to take from him. The confrontation took place on the shores of the Ocean. Geryon was, for Diodorus Siculus, a man with three heads or three bodies united from the waist, whilst for Justin they were "three brothers with such a great bond that they all seemed to be encouraged by one sole spirit"[7].

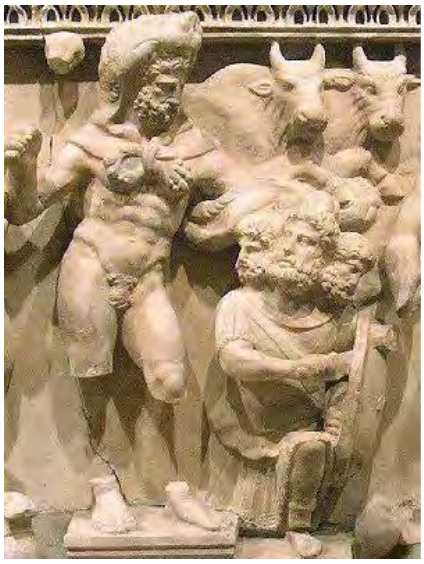
[5] Diodorus Siculus, IV, 17, 1-3.

[6] Diodorus Sículus, IV, 18, 2-3

[7] Justin, XLIV, 14-16.

The myth passed from the Hellenic world to the Roman world and Virgil[8], as well as Titus Livius[9], Propertius[10] and Ovid[11], narrated the feats of Hercules on his return to Italy. This tradition was inherited by the medieval world and the figure of Hercules survived, as did the memory of his feats and of his adversaries. In the *Etimologías* of Saint Isidore of Seville, the battle between Hercules and Geryon[12] is mentioned along with some of Hercules' constructions[13].

Hercules and Geryon. Amphorae with black figures, c. 540 B.C.



The sarchofagus of Pergue (Turkey)

This Isidorian tradition was taken up again by Alphonse X the Wise in the *Estoria de Espanna*[14], written in Toledo around the year 1270. In this work, history is mixed up with unusual tales, which have mythological characters as protagonists. The account offers differing variations, but in all of them a series of common elements are repeated which are the basis of the narration.

Fight against Geryon. F. Leiro, 1992

According to this source, Hercules knew that there was a very powerful king that lived in Hesperia (Spain) who dominated the lands from the Tagus to the Duero; his name was Geryon, a giant of great strength that had threatened all his people. Hercules wanted to intervene in order to liberate these people and confronted Geryon. The battle lasted three days and nights, at the end of which Hercules defeated the giant, cut off his head and buried it. To commemorate his victory he built a tower-lighthouse on the site. Around it he founded a city which he called Crunia in remembrance of the first woman who lived there with whom he fell in love.

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[8] Virgil, *Eneida, VIII, 190-270.*

[9] Titus Livius, *Ab Urbe Condita* I, 7.

[10] Propertius, *Elegía,* IV, 9, 1-20.

[11] Ovid, *fastos,* I, 543-578.

[12] Saint Isidore, *Etimologías,* XI, 3, 28.

[13] Saint Isidore, *Etimologías,* XIII, 15,2; XIV, 6,7; XV, 1.

[14] "E Gerion atreviéndose en su valentía, e demás que era maior de el (Hercules) dizo quel plazie. E lidiaron tres días que no podien vencer, en cabo venció Hercules, e cortol la cabeça de Gerión. E mando en aquel logar fazer una torre muy grand, y e fizo meter la cabeça de Gerion en el cimiento, e mando poblar y una grand cibdat … y el primer poblador que y vino fue una mujer que avie nombre Crunna, e por essol puso assi nombre a la cibdat. Espan, sobrino d'Ercules, que ficó por señor en Espanna… acabó la torre de Faro que començara Hercules, que es cabo la Crunna, e com era omne sabidor, fixo fazer por grand sabiduría un gran espejo, que veien en él venir las naves por el mar de muy luenne, e pussol en somo daquella torre…" *Estoria de Espanna.*

When Hercules left, Espan, his nephew, was named lord of Spain and populated towns and cities. He finished the construction of the tower of the lighthouse which his uncle had started and, as he was a wise man, he gave it a lamp with a fire that would never go out. He also made a great mirror by which all enemy ships could be seen from a great distance.

Hercules kills King Geryon.
F. Zurbarán (1634)

The account of Alphonse X the Wise had an influence on later works, such as the *Crónica Abreviada* by Don Juan Manuel and the *Crónica General de Espanha* of 1344, which served to complete the myth. Licenciado Molina included this legend in the *Descripción del Reino de Galicia*[15] (1549), as did Florián Ocampo in the *Crónica General*[16] (1544), in which he attempted to separate history from the legend.

From the second half of the 16th century, historiography was divided in two interpretations: one which defended the truth of the fable and another which tried to separate the legend from historical facts. Among the supporters of the former we can highlight the writers Baltasar Porreño[17], Cardinal Jerónimo del Hoyo[18], Castellá Ferrer[19] and Rodrigo Mendes Silva who would be followed by Pascasio de Seguín, J. Parsicio de Moraleja y Navarro and Juan Antonio de la Estrada, during the 18th century.

The second interpretation was followed by Gaspar Barreiros, Juan de Mariana, Friar Bernardo de Brito, and Friar Pedro de Santa María and, in the 18th century, by Luis Moreri and Father Flórez[20], who did not accept the reality of the legend.

This situation changed at the end of the 18th century when José Cornide Saavedra published *Investigaciones sobre la fundación y fábrica de la Torre llamada de Hércules, situada a la entrada del puerto de La Coruña*[21], discerning clearly between the mythological account and historical reality in such a way that from that moment historiography stopped considering the legend of Hercules to be a historical source.

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[15] Molina, B. S., de, *Descripción del Reyno de Galicia, y de las cosas notables del con las Armas y Blasones de los linages de Galicia, de donde proceden señaladas casas en Castilla,* Mondoñedo, Imprenta de Agustín Paz, 1550.

[16] Ocampo, F., *Crónica General de España,* Madrid, Imprenta de Benito Cano, 1791.

[17] Porreño, B., *Nobiliario del Reyno de Galicia,* 1587 (A Coruña, Ed. Boreal, 1997).

[18] Hoyo, J. de, *Memorias del Arzobispado de Santiago.,* Ed. A. Rodríguez González y B. Varela Jácome, Santiago de Compostela, Porto Eds. 1950.

[19] Castellá Ferrer, M., *Historia del Apóstol de Iesus Christo Santiago Zebedeo, Patrón y Capitán General de las Españas…,* Madrid, Imprenta de Alonso Martín Balboa, 1610.

[20] Flórez, P. E., *España Sagrada. Teatro Greográphico-Histórico de la iglesia de España,* Tomo XIX, Madrid, 1752.

[21]Cornide Saavedra, J., *Investigaciones sobre la fundación y fábrica de la Torre llamada de Hércules, situada a la entrada del puerto de La Coruña,* Madrid, Oficina de Don Benito Cano, 1792.

A. 2. 1. The Influence of the Legend of Hercules on the Iconography of the Tower of Hercules.

The influence that this mythological account had on the iconography of the Tower of Hercules is extraordinary, as in the most ancient representations of the monument elements appear which have their origin in the invention of the myth itself. Obviously, we are dealing with idealised images which do not even pretend to be realistic so it is difficult to rely on them to study the appearance the structure had at that time but they are a living testimony to how the legend was widespread around the city.

At least from the end of the 15th century, the Tower of Hercules had become the image of La Coruña, when the town council took it as the symbol for its coat of arms. From that time on, the city and the Tower were one and the same. The first known examples, dating from around 1448, are very brief, but over the 16th century the structure of the coat of arms was formulated in such a way that from the middle decades of that century all the key elements for the interpretation of the legend of Hercules were in place.

One of these images appeared on the Royal Mandate of 1552 of Emperor Charles V, together with the Pillars of Hercules. On it the lighthouse is represented on a headland dominating a wide sector of the coast. Under the foundations of the structure the crowned head of Geryon is buried on its side thus forming the base of the Tower itself. On the top both the reference to the lamp placed by Espan and to the mirror which allowed the sighting of enemy ships at a great distance appear. Around the lighthouse there are the eight scallop shells and, in some cases, above the Tower there was a ciborium as one of the arms of the kingdom.

Detail of the Columns of Hercules. Executive Order of Carlos V, 1552

A variation of this iconography can be found on a coat of arms preserved at the archaeological museum of the castle of San Antón, which dates from the end of the 16th-17th century, in which the crowned head is substituted by the skull which has lost its crown which rests at its side.

Shield shown on the door of the Tower of Arriba. 16th – 17th centuries

Executive Order of Carlos V, 1552

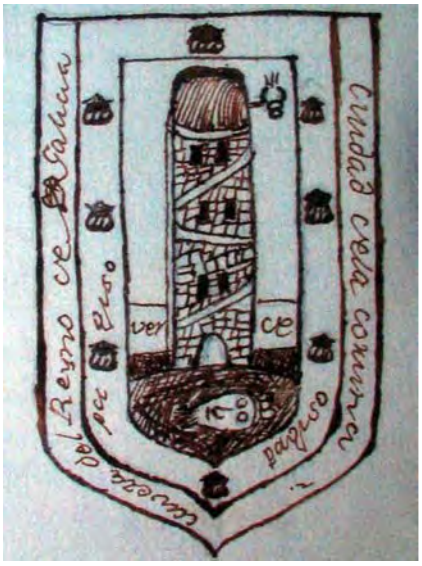
Detail of the Tower of Hercules. Executive Order of Carlos V, 1552

This iconography, with minimal variations, appears on coats of arms preserved from the 17th century which can be found in the town hall and on the wall of the Jardín de San Carlos. In both cases the Tower with its lamp has been carved but the tilted head of Geryon has been substituted in the latter for a crowned skull in an upright position under the base of the lighthouse.

From the middle of the 17th century onwards, it can be considered that the heraldic image of the Tower had been established and no more significant changes to its make-up would be carried out as can be seen in the coat of arms of the city from 1781, just ten years before Eustaquio Giannini began the reformation. It was, without a doubt, these works which brought about a change in the image of the Tower. It was at the beginning of the 19th century that the profile of the new lighthouse was introduced into the coat of arms and the head of Geryon was substituted for the skull placed over crossed tibias, this element appears in some shield of 17th century.

Shields of the Town Council of A Coruña

Shield of A Coruña. Jardín de San Carlos. 17th century



Shield of the city in 1781

Old shield of the Town Council of A Coruña

A. 3. The Tale of Trecenzonio[22].

The tale of the monk Trecenzonio is a source from the 11th century which combines the legend of Breogán with that of Hercules, at a date previous to the writing of the *Estoria de Espanna* by Alphonse X the Wise, which goes to show the circulation of the myth beginning with the knowledge of the *Etimologías* of Saint Isidore.

The document was made known by Díaz y Díaz and narrates a journey of Trecenzonio to Galicia. According to the tale, upon arriving in the region, the monk encounters uninhabited lands which have been left vacant after the Arab invasion. On his journey by the coast, he discovers a high construction, the *Farum Brecantium*, which he approaches and climbs.

When he reaches the top, he finds the mirror in which he sees, three times, a distant island which he wishes to travel to. When he arrives on the island, he goes into a state of beatitude which lasts for seven years during which time he is fed by supernatural means. When this time comes to an end an angel orders him to return but he refuses and, as a consequence, he suffers the punishment of going blind and of having his body covered in sores. Faced with this situation he begs for divine mercy and returns on a boat to Galicia but upon arriving very close to where he had set sail from,

[22] Díaz y Díaz, M. C., *Visiones del más allá en Galicia durante la Alta Edad Media,* Santiago de Compostela, Bibliófilos Gallegos, 1985, pp. 95-112.

he realises that circumstances have changed and that the *Farum Brecantium* is half destroyed and the city repopulated.

This interesting tale has certain parallels with the tale of the *Leabhar Ghabala*, in which Ith also climbs up to the top of the tower from where he sees an island, Ireland, which he decides to conquer. However, parallels, likewise, can be drawn with the legend of Hercules due to the reference to the mirror which was found at the top of the tower which was also described in the *Estoria de Espanna.*

There were, therefore, during the 11th century, two legends regarding the Tower, one linking its construction to Breogán and the other to Hercules both of which are drawn together in the tale of Trecenzonio.

B. Origins of the Tower of Hercules.

B.1. Antecedents of the Roman Lighthouse.

The Tower of Hercules is a Roman lighthouse built in the North West of the Iberian Peninsula as an aid to navigation for the ships which sailed in the western-most extremes of the Empire. Its origins are, therefore, closely linked to the age of Roman dominion over Gallaecia.

Until a few years ago, some historians defended the hypothesis of the construction of a lighthouse prior to that of the Roman era. Authors such as Verea, Vicetto, Barros Silveiro, Murguía, Tettamancy, García de la Riega and Rey Escariz tried, without evidence, to prove that a Celtic tower had existed on Punta Eiras before the arrival of the Romans, which the Phoenicians had remodelled and consecrated to Hercules and which the Romans had then restored so that it could continue to be used.

These interpretations are not accepted today because if a prior construction had existed, some type of proof would have remained in the archaeological strata but this is not so, given that in the two digs which have been carried out, one in 1945 around the tower under the direction of Luis Monteagudo García and another in 1992 at its base, supervised by Luis Caballero and José María Bello, no vestiges were found to allow this theory to still be supported.

The latest studies published about the Tower[23] agree on its Roman origin and do not contemplate the possibility that an earlier construction preceded the current one although it is probable that the natural headland upon which the monument sits could have functioned as an observation post for the control of maritime traffic. However, there are certain indications that seem to point towards the fact that the peninsula on which the Tower is located could form part of an indigenous religious site or sanctuary including the prehistoric burial sites of Punta Herminia, known popularly as the Monte dos Bicos. Connected to this religious site are the indigenous settlements (castros) of Elviña y Nostián and the place

Petroglyphs in Monte dos Bicos

[23] Sánchez García, J. A., *Faros de Galicia. Historia y construcción de las señales luminosas en un Finisterre atlántico.* A Coruña, Fundación Caixagalicia, 2004.

names of Os Castros and Castrillón which prove the existence of human occupation in the area around the Tower in the Iron Age[24].

In addition, it is possible to establish a relationship between the existence of a tower dedicated to Hercules on a natural headland such as Punta Eiras with other coastal sanctuaries within the realms of the peoples that inhabited the Atlantic coast which are consecrated to gods assimilated to the Greco-Latin hero. González García analysed the coincidences between the Herculean sanctuary and the Promontorio Sacro, Cape San Vicente, described by Strabo and came to the conclusion that there are evident similarities between both places. Likewise, he found certain concomitances with Celtic religious sites dedicated to the world of the dead and the after-life, more precisely, the place names Buey, Vaca and Becerro, which are the names given to the rocky outcrops situated in front of the Tower, are repeated in the sanctuary of Kenmare on the South West coast of Ireland where tradition situated the island of Donn or the Island of the Dead[25]. This line of argument would justify the inclusion of these rocks within the boundaries of the proposed site.

Indigenous settlement (castro) of Elviña

Crags of Buey Grande and Buey Pequeño in front of the Tower of Hercules

B.2. The Integration of La Coruña within the Roman Area.

Traditionally historiography has considered that the commercial and cultural relations of the Celtic world were exclusively restricted to the Atlantic sphere and, to a lesser extent, to the communities settled in the centre of the Iberian Peninsula but these affirmations are questionable today because materials found in archaeological digs confirm the existence of contacts with the Mediterranean world from at least the 4th century B.C.

From the 2nd century B.C., the Romans, who were by now established in Hispania, intensified their relations with the North West of the peninsula. There is evidence of an expedition led by Decimus Junius Brutus, who entered the territory from the south of Portugal.

Recreation of the Roman landing in Brigantium. A. Rey Escariz

In the year 61 B.C., according to Dion Casio it was Julius Caesar himself, who happened to be in Cadiz, who led the expedition which arrived by sea in Brigantium (now Coruña) with the aim of establishing commercial contacts thus allowing for the foundation of a small colonial establishment of strategic importance on the edge of the Empire.

It is clear that Brigantium became an important port during the Cantabrian Wars (29-19 B.C.) as far as the distribution of both men and material for the war was concerned. In the reign of Augustus, during the period of peace, there was an increase in commercial

[24] Bello Diéguez, J. M., "La Coruña antes de Roma: el Mundo Castrexo", in *Ciudad y Torre. Roma y la Ilustración en La Coruña,* A Coruña, Ayuntamiento de A Coruña, 1991, pp. 41-50.

[25] Alonso Romero, F., *Creencias y tradiciones de los pescadores gallegos, británicos y bretones,* Santiago de Compostela, 1996, p. 159; González García, F. J., *Hércules contra Gerión. Mitos y leyendas de la torre de Hércules,* vol. 2, Perillo-A Coruña, Vía Láctea Ed., 1998, pp. 97-103; Sánchez García, J. A., *Faros de Galicia. Historia y construcción de las señales luminosas en un Finisterre atlántico.* A Coruña, Fundación Caixagalicia, 2004, p. 277.

relations which brought about a greater level of development in roads and in maritime traffic as a consequence[26].

This highly Romanised region served as a base for the conquest of Britannia and the strategic importance of the natural port of Brigantium gained more value. Indeed, it became one of the main enclaves of the Via XX, better known as the authentic "*per loca maritima*", in order to differentiate it from the "per loca maritima" of Antonino, a part of whose route was overland.

The authentic *per loca maritima* joined, according to the latest research carried out by Rodríguez Colmenero[27], the North West of the Iberian Peninsula with the Mediterranean routes and the ports of the South. It was, therefore, an authentic MARITIME ROUTE, one which passed very close to the coast and penetrated all the Galician estuaries. It was from the latter that the overland routes began which linked the coast to the main towns of Gallaecia, such as *Bracara Augusta* (Braga-Portugal) and *Lucus Augusti* (Lugo), with the *conventus Asturiense* and, more importantly, with the city of *Asturica Augusta* (Astorga-Spain). On the authentic "*per loca maritima*" the port of Brigantium was one of the main stops and the Roman ships on their military expeditions claimed it as their own. Therefore, this enclave was of great relevance and the construction of the lighthouse would have been justified by the fact that this was a port of great military interest.

Itinerary of the authentic "per loca marítima"

Apart from the importance of *Brigantium*, the whole of the North West of the Peninsula was a highly Romanised land and this presence has left innumerable architectural and archaeological traces as well as place names which have formed a cultural substratum of which we are descendents.

Lucus Augusti (Lugo) was the head of the *conventus Lucensis*, a city founded by the legate of the Emperor Augustus Paulus Fabius Maximus in the 1st century A.D. on the site of an old military camp which was set up before the Cantabrian Wars. It was from this settlement that a city sprang up which reached its full development in the late Imperial era. It is from this era that the impressive 2700 metre-long wall, which still stands and has already been declared a World Heritage Site, dates.

The Roman Wall of Lugo. World Heritage Monument

A large number of settlements should be mentioned, along with *Brigantium* and *Lucus Augusti,* which sprang up in the North West of the Peninsula, along the Vias XIX and XX, the so-called Atlantic Vias which were the arteries that linked the whole of the territory. It is worth noting that modern-day Pontevedra had its origins in the *mansio Ad Duos Pontes,* according to some writers, or the

[26] Naveiro López, J. L, *El comercio antiguo en el NW peninsular. Lectura histórica del registro arqueológico.* A Coruña, Edicións do Museo Arqueolóxico e Histórico de A Coruña. Monografías Urxentes do Museo, nº 5, 1991; Naveiro López, J. L., *El Golfo Ártabro. Arqueología e Historia del gran puerto de los Galaicos Lucenses,* A Coruña, Asociación Amigos do Museo Arqueolóxico de A Coruña, 1994.

[27] Álvarez Asorey, R., Ferrer Sierra, S., Rodríguez Colmenero, A., *Miliarios e outras inscripcións viarias romanas do Noroeste hispánico.* Santiago de Compostela, Concello da Cultura Galega, 2004, p. 592-570.

Turocquae, according to others, both of which were along the Via XIX.

The town of *Vicus*, modern-day Vigo, appeared and was joined to the Via XIX by the authentic per loca maritima. It was a settlement which attained its highest level of splendour in the late Imperial era but which was born out of the intense commercial activity which developed all along the Vigo estuary from the 2nd century B.C. onwards and which left its mark on the coast, where quite diverse archaeological remains have been unearthed, such as port facilities, production facilities (salt works and salting factories), villas (*villae*), mansions (*mansio*) and Romanised hill fort settlements.

In the rest of Galicia's estuaries interesting archaeological remains have been found scattered around the coast which prove the importance of the export trade in salted fish and of the tile factories, which were established to make the most of the good quality clays which could be found throughout the region.

As well as these urban settlements, the permanent establishment of Roman troops in Galicia should also not be forgotten. By way of the camps of *Aquis Querquernis*[28] (1st century A.D.) and *Ciudadela*[29], the headquarters of the *Cohors I Celtiberorum*, they controlled the exploitation of the mining industry (tin and gold) which was a valued source of income.

Roman camp of Aquis Querquernis. Bande, Ourense

It is in this context of the far-reaching Romanisation experienced by the North West of the Peninsula that the presence of a lighthouse to direct and guide the heavy volume of maritime traffic in the western extreme of the Empire can be understood.

B.3. The Dating of the Roman Lighthouse.

The site chosen for the Tower was a hill situated in the extreme North of the Peninsula upon which the town of Brigantium was located; a place which may already have been used as a natural observation post due to its strategic location and which had great symbolic value for the indigenous community as it was the site of an earlier sanctuary.

The precise date of the construction of the Tower is unknown although it would have been between the 1st and the beginning of the 2nd centuries A.D. The many historians that have broached the subject have generally been in favour of two different dates: the years following the Cantabrian Wars (29-19 B.C.) or during the reign of Trajan (98-117 A.D.), a period during which investment in public works in Hispania was at a peak. The Latin inscription which still lies at the foot of the monument can give clues towards its date. It is dedicated to Mars, the god of war. It is possible that this inscription obeyed the desire to thank this god for his intercession

[28] Rodríguez Colmenero, A., Excavaciones arqueológicas en "Aquis Querquernnis": actuaciones en el campamento romano (1975-2005), Lugo, Grupo Larouco, 2006.

[29] Caamaño Gesto, J. M., Fernández Rodríguez, C., "Excavacións do campamento de Ciudadela (A Coruña), *Brigantium,* vol. 12 (2000), pp. 199-208.

during the war. The North West of the Peninsula was not affected by war with the exception of the Cantabrian Wars and for this reason it is possible that the text is alluding to this event in particular. In addition, according to Álvarez Asorey[30], the fact that Mars has been addressed as Augustus allows the inscription to be dated to the times of the Emperors Julius Caesar or Octavian Augustus, which would strengthen the argument that the Tower was built during the 1st century A.D. The archaeological explorations carried out on the plane and at the base of the Tower prove the existence of a level of occupation consistent with this time.

The second hypothesis, and perhaps the one which can count on the greatest number of supporters, links the construction to the times of the Emperor Trajan (98-117 A.D.) It was Cornide Saavedra[31], in 1792, who first put forward this possibility basing his argument on the fact that the lighthouse was a support system for military squadrons heading to Britannia and that, for this reason, it would be from the 2nd century that its presence would be justified. In addition, he held the opinion that if the lighthouse had existed before the 2nd century A.D., some mention of it would have been made in the writings of Strabo, Pomponius Mela and Pliny the Elder, who described in detail the coast of Brigantium and cited other lighthouses such as the one in Chipiona in Sanlúcar de Barrameda (Cádiz-Spain).

Urgorri Casado[32], Bello Diéguez[33] and Laredo Verdejo[34] have argued along the same lines, although from different fields, namely mathematics, archaeology and nautical astronomy, that the lighthouse must have been built in the first few years of the 2nd century A.D.

B.4. The Problem of Who Designed it.

At the base of the lighthouse, to the south of the structure, is a Latin inscription carved into a rock with a rough, uneven surface, which was in the open air until a small stone hut was built around it in the nineteenth century.

Small shelter where the inscription is conserved

[30] Álvarez Asorey, R., Ferrer Sierra, S., Rodríguez Colmenero, A., *Miliarios e outras inscripcións viarias romanas do Noroeste hispánico.* Santiago de Compostela, Concello da Cultura Galega, 2004, p. 324-326.

[31] *Investigaciones sobre la fundación y fábrica de la Torre llamada de Hércules, situada a la entrada del puerto de La Coruña,* Madrid, Oficina de Don Benito Cano, 1792, p. 8.

[32] Urgorri Casado, F., "Problemas históricos en torno al faro romano de La Coruña", *La Coruña: Paraíso del Turismo: La Coruña La Historia y Turismo,* 1990, pp.

[33] Bello Diéguez, J. M., "La Torre Romana", in *Ciudad y Torre. Roma y la Ilustración en La Coruña,* A Coruña, Ayuntamiento de A Coruña, 1991, pp. 177-180.

[34] Laredo Verdejo, J. M., "Ensayo sobre la Antigüedad de la Torre de Hércules", in *Revista del Instituto Cornide de Estudios Coruñeses,* 1992-1993, vol. 27-28, pp. 161-176.

The inscription reads as follows:

MARTI / AUG[USTO] SACR[UM] / C[AIUS] SEVIUS / LUPUS/ ARCHITECTUS / AEMINIENSIS / LUSITANUS EX VO[TO][35].

Translation: Consecrated to Augustus Mars. Gaius Sevius Lupus, architect from Aeminium (Coimbra) Lusitania, from my vow.

As this is a personal vow to Mars and there is no clear link to the construction of the Tower, some historians have thought that the mount on which the lighthouse was raised could previously have been a holy place, consecrated to the god of war. However, this position, which was upheld by Ocampo and Father Mariana, is questionable today due to the fact that the arguments used do not appear to be supported by the most recent research carried out.

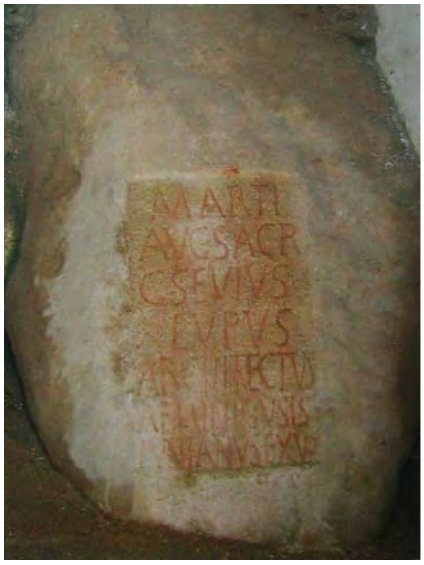
Most writers are of the opinion that everything seems to point towards a relationship between the inscription and the Tower; its immediate proximity and the fact that it is attributed to an architect from Aeminium, modern-day Coimbra (Portugal), a city close to Bracara Augusta, located on the Via XIX, the so-called Via Nova, seem to be sufficient to acknowledge that Gaius Sevius Lupus was responsible for the construction of the Tower.

This does not mean that the architect dedicated the Tower itself to Mars Augustus. Rather, it could be supposed that what was dedicated may have been a statue, whose existence has been suggested based on the hollows perforated on the inscription on the rock itself and in the remains of gold-plated bronze which were found around the stone during the excavations carried out in 1992.

According to Ocampo and Mariana there was an Imperial regulation included in the *Pandect* or Digest which prohibited an architect from putting his name on a public work. These references have been located and there are examples which contradict this rule. One example is the Gavi Arch (1st century A.D.) in the city of Verona (Italy) upon which the name of Lucius Cerdo appears. Another example is the Alcantara bridge (Caceres – Spain) dating from 104 A.D. upon which an inscription is preserved dedicated to Trajan which bears the name of Gaius Julius Lacer, its architect[36].

Therefore, it would not be unheard of that Gaius Sevius Lupus should leave his name with his work so that, by means of the inscription, he would be remembered together with the monument itself.

It is not often that we know the names of the craftsmen of constructions of these characteristics; possible reference points could include the Lighthouse of Alexandria and the Colossus of Rhodes. According to ancient descriptions at the bottom of the Lighthouse of Alexandria there was an inscription upon which the name of the architect appeared.



Inscription dedicated to Mars Augustus, by Gaius Sevius Lupus, architect.

[35] La lectura aceptada por los autores modernos, J. M. Bello, *La Coruña Romana y Alto Medieval. Siglos I-XII,* A Coruña, Vía Láctea, 1994, pp.38-39.

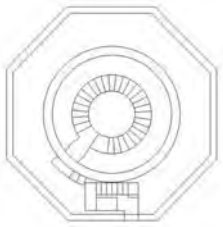
[36] Urgorri Casado, F., "Problemas históricos en torno al faro romano de La Coruña", in *La Coruña: Paraiso del Turismo: La Coruña Historia y Turismo,* (1990), no page numbers.

SOSTRATES SON OF DEXIPHANES OF KNIDOS ON BEHALF OF ALL MARINERS TO THE SAVIOR GODS.[37]

There is also evidence of Chares of Lindos, the sculptor responsible for creating the figure of bronze, and of Lachus, who undertook the task of finishing it. In this context it can be understood that with this votive inscription beside the Tower of Hercules we have before us the signature of a Roman architect-engineer who knew that, by way of his work, he could immortalise his name.

B.5. Morphological Characteristics of the Roman Lighthouse.

The lighthouse known as the Tower of Hercules is an extraordinary work of Roman engineering in which design and building technique were combined to produce a structure which is not only of great quality but is also eminently functional. It is an example of Roman *praxis* of the type defended by Vitruvius which is manifest in constructions such as Roman roads, bridges, aqueducts, gateways and also lighthouses. In this sense, the Tower of Hercules is an excellent example of a specific architectural typology which has reached us as a unique construction, incomparable with the battered ruins of other lighthouses which remain both on the Mediterranean and Atlantic coasts. What is more, the Tower of Hercules continues, after so many years, to fulfil exactly the same function – that of illuminating the dark ocean nights.



Lighthouse of Taposiris Magna, Egypt

When the Romans decided on the location for the construction of the lighthouse, they found a place with strategic importance; a natural headland with an elevation of 57 metres above sea level, which would mean that the light would be 100 metres high, thus exceeding the height of any other Roman lighthouse.

Remains of the Lantern of Augustus

It is possible that this place had previously been used as a vantage point to control the coastline due to its great geographical characteristics and as a point of reference for the entrance to the natural harbour of Brigantium, which was one of the most dangerous in the region, not only because of the sandbanks at the entrance to the estuary but also due to the characteristics of the coast itself which made it impassable from a nautical point of view thus greatly complicating navigation in that area. Whichever way you look at it, the construction of the lighthouse would have been a means of facilitating not only the maritime transit of military squadrons but also of the merchant ships which travelled along the north-western coast in the time of the Romans.

Remains of the fortifications of the port of Forum Julii. Frejus-France

In this sense, the Tower of Hercules differed from other contemporary lighthouses, which no longer stand, such as those of Ostia (Italy), Leptis Magna (Libya) and Forum Julii (Frejus – France) which were situated on the end of quays at the entrance to the harbour, integrated into the infrastructure of the port itself. The case of the Tower of Hercules is different; it is a solitary lighthouse

[37] Sánchez Terry, M. A., *Los faros españoles: Historia y evolución,* Madrid, Ministerio de Obras Públicas y Transportes, 1991, p. 21.

which, as has already been mentioned, is located on the ocean shore at a height of 57 metres above sea level close to the entry channel of the estuary, acting as maritime signalling element away from the ancient port of Brigantium which was to be found sheltered from the storms in a natural inlet inside the estuary.

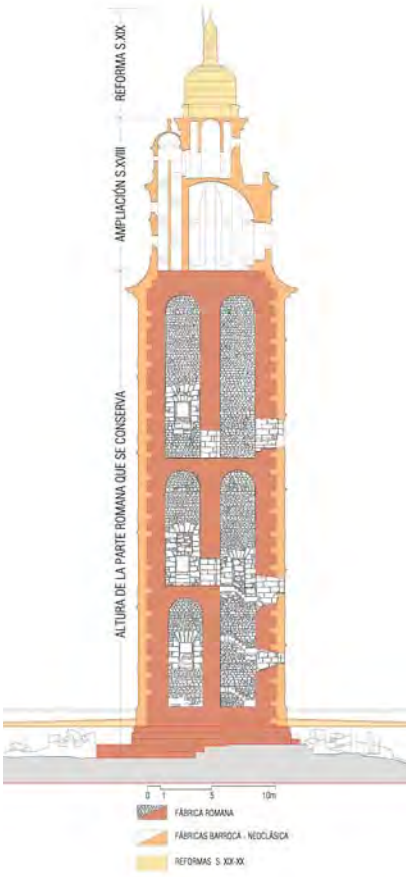
Reconstruction of the Port and Lighthouse of Ostia, Rome - Italy

Hypothetical reconstruction of the Lighthouse and Port of Leptis Magna, Libya

As well as these technical matters, the peninsula on which the Tower stands was a place of great symbolic importance to the indigenous community, which regarded the whole area as a holy place, connected to the afterlife and the world of the dead. Therefore, the construction of the lighthouse supposed, to a certain extent, the colonisation of ceremonial site and the manifestation of the dominant power of the Empire on the indigenous population.

The Roman lighthouse was a square-shaped tower of approximately 18 metres across though only 11.75 metres, corresponding to the internal nucleus, are preserved today. The rest, making up the full 18 metres, has been lost as the ramp and the exterior wall, of which vestiges were found during the archaeological dig of 1992,[38] have disappeared.

The height of the lighthouse would have been approximately 41.58 metres, four of which would have corresponded to the rotunda which crowned the structure, where the mirror and the lamp were located. This rotunda was taken down during the restoration work carried out by Eustaquio Giannini in 1790[39]. The lower 37.58[40] metres corresponded to the prismatic body, of which 34.38 metres remain under the neo-classical outer shell and 3.2 metres are hidden under the platform which forms the base of the Tower although they can be seen today in the museum area.



Section in color: Roman walls in yellow and neoclassic ones in brown, by Doce Porto and Trigo Cousillas.

Hypothetical reconstruction of the Tower in Roman era. Factoría Gráfica

Engravings of the Tower of Hercules. 18th century

[38] Caballero Zoreda, L., Latorre González-Moro, P., "El faro de La Coruña, llamado la torre de Hércules", in *Hispania. El legado de Roma,* Madrid, Ayuntamiento de Zaragoza- Ministerio de Educación y Cultura, 1998, pp. 453-457;

[39] Romero Masiá, A., A restauración da torre de Hércules e o Real Consulado da Coruña", in *Fuentes para el estudio de la Torre de Hércules. Conmemoración del Bicentenario de la reedificación dela torre de Hércules,* A Coruña, Instituto "José Cornide" de Estudios Coruñeses, A Coruña, 1991, p. 163*;* Vigo Transancos, A., *A Coruña y el Siglo de las Luces. La construcción de una Ciudad de Comercio (1700-1808),* Santiago de Compostela, Universidade de Santiago de Compostela, Universidade da Coruña, 2007, 240-245.

[40] Sánchez García, J. A., *Faros de Galicia…* (2004), p. 286; considers that it could have been 36m.

The four facades of the Tower were oriented towards the four cardinal points as was mandatory in constructions of this type due to the fact that lighthouses, as well as being an instrument of maritime signalling, were a tool for navigation and reference which served to aid vessels.

As has already been mentioned, the tower originally had a spiral ramp accessing the rotunda. Evidence of this was left in several drawings which have been preserved from the 17th and 18th centuries, in which the grove left by the ramp in the walls when it disappeared can be seen clearly.

Perhaps, animals bearing wood to fuel the lamp would have used this exterior ramp to climb up the Tower. It has been calculated that a load of 700kg may have been needed each night[41]. This meant that the lighthouse keepers would have needed space to store all of this wood with the aim of keeping the lamp functioning. This would have meant that the chambers were probably used as storage areas. For security reasons there was no communication between these rooms as wood is a combustible material and, if this were not so, a fire could have spread with great ease thus putting the structure of the building in danger.

In addition to the storage rooms for the wood, it would have been necessary to provide a place for the guardsmen so one of the chambers of the lighthouse would have to have been set apart for this function.

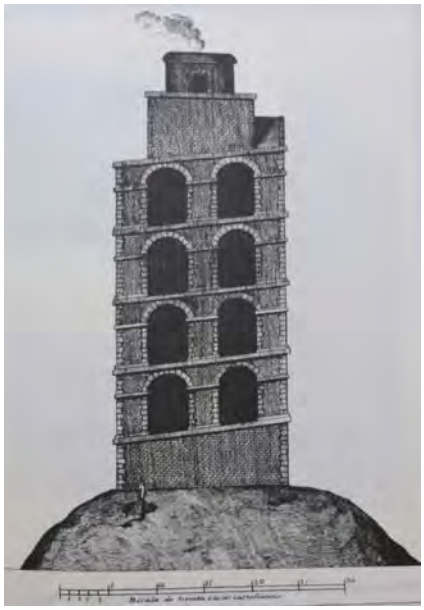
This interior distribution of the rooms inside the Tower of Hercules is quite similar to that of the lighthouse of Leptis Magna (which no longer stands), which was studied by Bartoccini and to which Hauschild called attention due to the analogies which can be established in relation to the existence of chambers which had both constructive and functional uses.

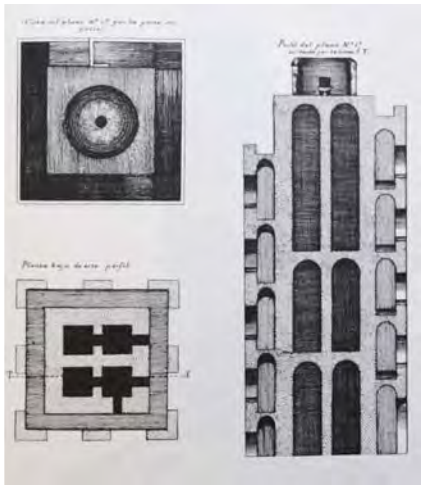
The interior distribution of space in the Tower of Hercules was altered when, at the time of the reforms of the Duke of Uceda, in 1685, the vaults of the chambers were perforated in order to install the wooden staircase to make access to the lamp easier once the exterior ramp had disappeared.

It was Cornide Saavedra in 1792 who first pointed out the possibility that the ramp was external and was supported on upright feet and vaulted sections or at least strengthened by transverse arches, albeit open to the outside by way of pairs of arched windows superimposed on all sides as, according to his own testimony, some keystones were preserved "which were fixed to the springer stones and which seemed to have been part of the angular arches which would have served to support the ramps on each side and held up the rest areas"[42].

Hypothetical reconstruction of the basement chambers of the lighthouse of Leptis Magna, by Bartoccini

Remains of the Lighthouse of Leptis Magna – Libya

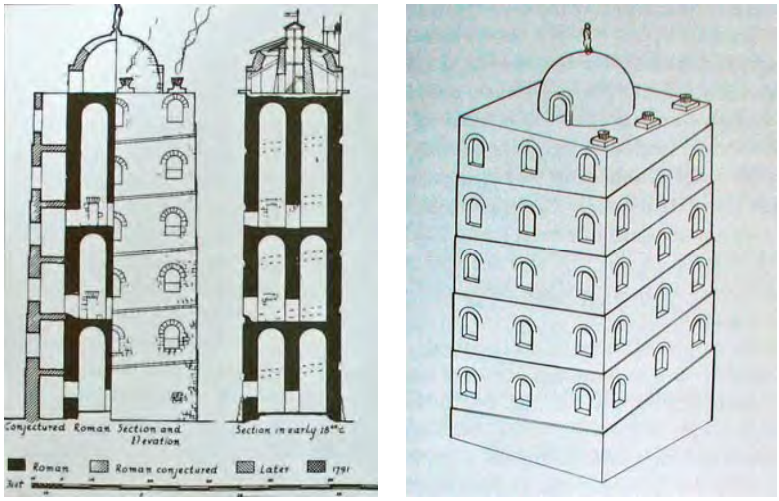




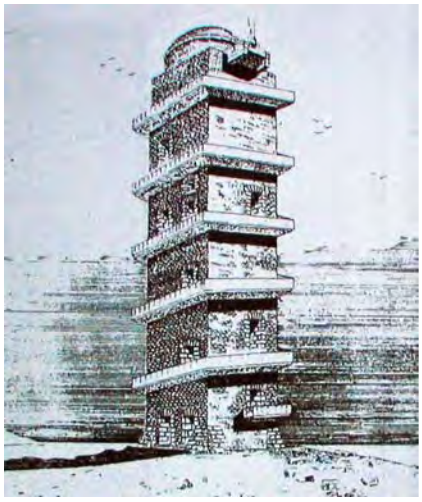
Hypothetical reconstruction of the Tower of Hercules, by Cornide Saavedra (1792)

[41] Fichou, J. C. (dir), *Phares. Histoire du balisage et de l'éclairage des côtes de France,* Le Chasse-Marée, Ar Men, 1999, p. 38, collected by Sánchez García, J. A., *Faros de Galicia, …* (2004) p. 538.

[42] Cornide Saavedra, J. M., *Investigaciones …* p. 27 and 47.



Reconstruction of the Tower, according to Hague-Christie and Sutton-Jones



Reconstruction of the Tower, according to Hutter

He also proposed, in another drawing, the possibility of the existence of a raised ramp supported by means of a continuous balcony on the nucleus, which was preserved until the 18th century. This second option was taken up again by S. Hutter[43].

In later studies, such as those carried out by T. Hauschild[44], Hague-Christie and Sutton-Jones[45] and Caballero Zoreda and Latorre González-Moro[46], the existence of the ramp is insisted upon but it was suggested that it was supported by an exterior facade, perhaps with steps from the base in a similar style to other ancient lighthouses such as Leptis Magna (Libya), Gades (Cadiz – Spain), Taposiris Magna (Abusir-Egypt) and Boulogne (France).

Hypothetical reconstruction of the lighthouse of Leptis Magna – Libya, by Bartocinni

Possible lighthouse of Cadiz. I-III century A.D

Representation of the possible lighthouse of Ostia - Rome. Museum of Saint Paul Outside the Walls (Rome).

[43] Hutter, S: *Der römische Leuchtturm von La Coruña,* Main and Rhein, Ph. Von Zabern ed., 1973 (*El faro romano de La Coruña,* A Coruña, Ayuntamiento-Ed. O Castro, 1973), p. 24.

[44] Hauschild, T., El faro romano de La Coruña (Torre de Hércules). Problemas de su reconstrucción, A Coruña, Ayuntamiento da A Coruña-Eds Do Castro, 1991, pp. 94-95.

[45] Hague, D. B.; Christie, R., *Lighthouses. Their Architecture, History and Arqueology,* Llandysul, Gomer Press, 1975.

[46] Latorre González-Moro, P; Cámara Muñoz, L., "Restauración de la torre de Hércules (La Coruña): 1791-1992", in *5 Quaderns científics i tècnics, Actes III Simposi sobre Restauració Monumental,* Barcelona, Diputació de Barcelona, 1996, pp. 155-178.

Tower of Order Lighthouse Boulogne (France), 1649

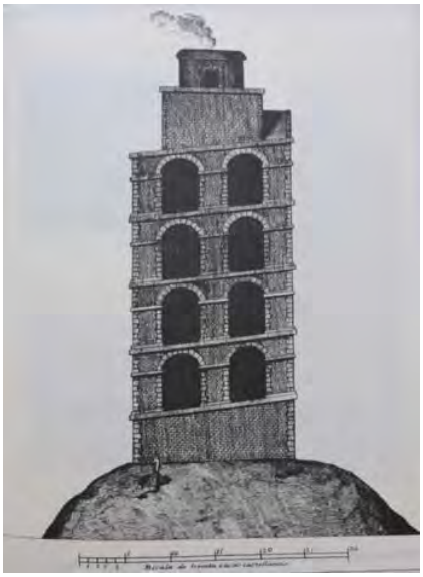
Representation of a Roman lighthouse. Terracotta

Mosaic which represents the lighthouse of Ostia

From a constructive point of view, the solution proposed by Hutter of a raised ramp built with blocks of stone in a corbel built into the wall of the interior nucleus has been definitively discarded due to remains which appeared during the archaeological dig and to the real impossibility of building a raised ramp of these dimensions. Also incoherent is the construction of a ramp with a flat floor of flagstones supported between the interior nucleus and the exterior wall as was proposed by Hauschild. This would have made it necessary to put some very large pieces in place. From a constructive point of view, it would seem more logical to have resolved this problem with a vault of similar characteristics to those which already existed between the two walls. In addition, Cornide's description[47] of the remains which were still visible before the neo-classical reconstruction does not allow for any doubt in this respect.

The development of this ramp has also been the object of different proposals due, above all, to the inexplicable placing of the window alcoves in the elevations of the interior nucleus of the Tower. Attempts have been made to find a logical use to justify this positioning by relating it to the development of the ramp. It has been said that they would allow for the storage of grain and wood in the interior of the enclosures and their extraction through the high alcoves which would have been at the same level as the floor of the ramp. In any case, none of the explanations appear to be convincing and that of Urgorri seems to be the most logical. Every floor has its two access doors to the two pairs of perfectly distinct rooms. The rest of the hollows are distributed so that each room has one each. These appear to have been built spirally and would have been for illumination and ventilation and for a connection to the possible hollows of the main wall.

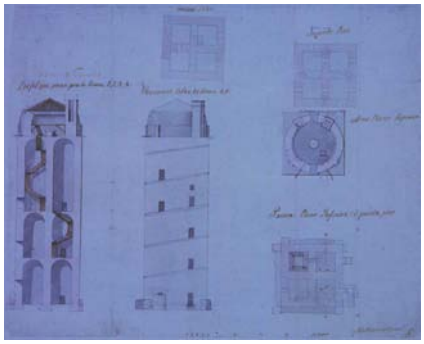
The layout of the ramp also varies according to the writer. Hutter tries to adapt it to the existing hollows, situating the access point at the window he designates as nº1, located in the north wall of the North West room on the first floor. Urgorri suggests that the ramp was horizontal on the east and west facades, thus coinciding with the pairs of access doors on the three floors and would only have



Hypothetical reconstruction of the Tower of Hercules which shows the ascending spiral ramp. José Cornide Saavedra 1792

[47] *"..para esta conjetura me fundo en que los ángulos de la Torre antigua se conservaban algunas dovelas que estaban pegadas á los salmeres, y que indicaban haber sido parte de los arcos angulares, que arrancando á una y á otra parte servían de apoyo á las rampas de cada frente, y sostenían los descansos, como sucede en cualquier escalera que sube en ángulos rectos."..." No es fácil determinar el ancho que tenía esta rampa; pero de la extensión del cimiento que se descubría alrededor de la torre antigua, infiero que no sería menor de cuatro pies."* Cornide Saavedra, J. M., *Investigaciones…* pp. 27-29.

been inclined on the north and south facades. This writer bases his hypothesis on Father Sarmiento's description which stated, in 1756, that the ramp had not scored the western facade because no crumbling was in evidence there. This solution necessitates an excessive sloping on the north and south facades which could only have been resolved with a staircase. All other writers support the view that the ramp was sloped continuously on all four facades and had horizontal resting areas on the corners.



Elevation, section and plans, by Baltasar Ricaud

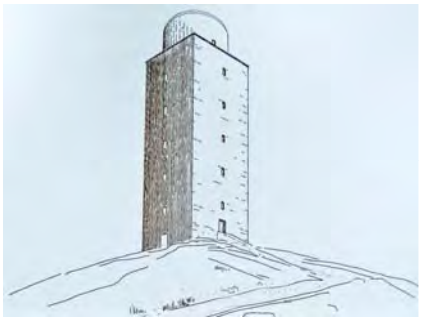
This solution would appear to be the most logical from the point of view of construction as the meeting point of the sloping vaults in the corners makes a geometrically complicated shape. The horizontal resting area produces a well-known form of ribbed vault used in Roman construction. In addition, all the plans made in the 18th century, which came directly from writers who saw the monument with their own eyes and are not copies made by engravers for a publication, coincide in showing a continuous slope in the ramp with the same degree of inclination all the way up.

The drawings of Cornide and Ricaud[48] - which are, in our opinion, the most trustworthy – show the same hollows which exist in reality, the same number of levels for the ramp and the same route for the latter in relation to the hollows. The only problem is that Cornide confuses the placement of the last hollow, which he situates one level above its true position. If we look closely at Ricaud's drawing of the main facade, we can observe that the slope of the ramp basically coincides with the spiral ribbon which decorates the facade of the neo-classical reconstruction. The ramp would have begun from ground level on the side of the northern facade and would have risen in 21 stretches around the preserved nucleus. Each facade would have held five stretches of ramp except the northern side, which would have had six, including the stretch starting from ground level and the access to the upper platform. If we divide the height of the tower by 21, we can see that each stretch of the ramp has to rise approximately 1.6 metres with a length of 9.9 metres and an inclination of approximately 16%.

If we look closely at the first section of the northern facade on Cornide's drawing, we cannot see the groove of the vault built into the wall. It can be supposed that, in this first section of the ramp, it would not have been built supported by a vault but rather by stone walls or a plaster filling similar to those which appear on the drawing making the corners of the Tower into crosses. Neither have any remains appeared in the archaeological excavations which provide any information on what this aspect would have been like. It is interesting to note that both authors show the two doors of the third level of the eastern facade as having different heights, thus adapting themselves to the route of the ramp. In conclusion, no document or evidence remains to allow us to define how the ramp arrived at the platform of the upper level, nor the form it had.

[48] B. Ricaud. 1772. Plano de la Torre de Hércules. Servicio Histórico Militar.

Neither is there any agreement on the number of openings there would have been on each of the sides or on the shape they would have had. Cornide suggests five pairs of great arcades on each facade except on the northern side, which would have had six. This arrangement would have had an open character due to the great amount of light provided by the arches and to their size. In addition, the existing windows in the internal nucleus coincide with Cornide's proposals in all cases except one. The external appearance of the construction would not have differed so much from the images that are preserved of other lighthouses and would have fit in with this typology. In this respect, the representations of the lighthouse of the port of Ostia (Italy) which we know of through terracottas and mosaics serve as a model to show a construction of several quadrangular bodies superimposed in height and with great windows in each one.

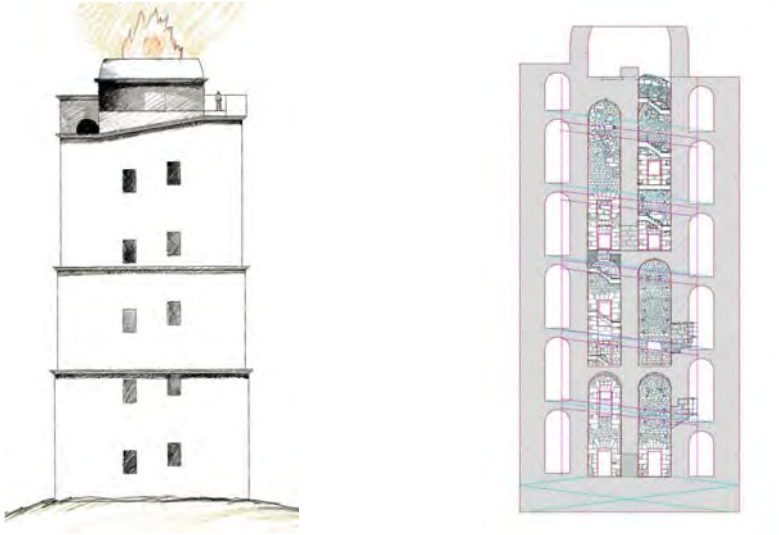


Hypothetical reconstruction of the Tower by Hauschild

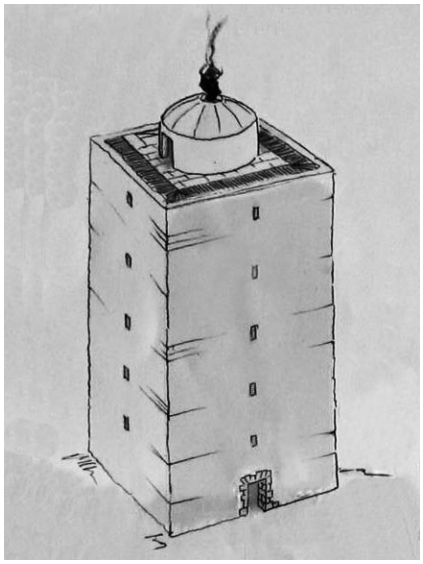
In contrast to this interpretation, Hauschild proposes a solidly-built, aggressive structure with a prismatic body with openings of reduced dimensions. The interpretations of Factoría Gráfica and Oscar Ayerra are along the same lines and take as their basis the hypothesis of Bello Diéguez, who also defended the idea of a solidly-made structure protected from the western winds, which lash fiercely at the Tower's peninsula.

Hypothetical reconstruction of the Tower of Hercules. Factoría Gráfica

Recently Latorre González-Moro has formulated his own proposal in which he presents the Tower as a prismatic structure of three bodies decreasing in height, following the model of the ziggurat lighthouses but with the peculiarity of each one of the prismatic bodies having a different height depending on the chambers. The ascending spiral ramp would have an inclination of 16° and six revolutions. Vast arched and lintelled windows would open onto it corresponding to those which are preserved in the interior nucleus. The rotunda would be covered, according to this writer, by a false dome with a large central opening to allow the smoke to escape.



Hypothetical elevation and section of the Tower of Hercules, by Pablo Latorre



Hypothetical reconstruction of the Tower of Hercules, according to Hauschild and Oscar Ayerra

The openings which are still preserved in the interior of the Tower allow the doors located at the base to be reconstructed adequately as well as those that were originally open to the ramp and which were distributed in quite an anarchical way around the different facades. All of these display a stonework dressing and lintelled

arches with keystones in a wedged formation.

Although there are engravings predating Giannini's reconstruction in which the groove left by the ramp in the exterior facades of the internal nucleus can be appreciated, it is very difficult to reconstruct the exact route of the ramp due to the fact that the openings which have been preserved have undergone severe alterations and it is not known which of them functioned as doors and which were simply for ventilation. The degree of inclination of the aforementioned ramp, which would probably not have coincided with the one introduced by Giannini in the reconstruction of the 18th century, is also unknown. In these circumstances it is very risky today to reconstruct the exact route of the ramp.

Given that the Tower was raised on a rectangular platform, Latorre González-Moro y Cámara Muñoz[49] proposed that, on its main, eastern, side, there were ramps which would have enabled access from the corners to the two main doors.

Detail of the opus quadratum used in the lintel of the access door to the chambers

As far as materials are concerned, the Romans used an *opus quadratum* of ashlars perfectly squared on the four external facades and on the rotunda, which have been lost, as well as on the lintelled arches and on the window and door jambs of the interior nucleus, which still stand today.

Opus Vitattum used in walls and opus caementicium used in the vaults

The *opus vittatum*, formed by more or less regular ashlars forming courses, was employed on the interior and exterior walls of the central nucleus, that is to say on those parts of the building which were not meant to be seen but rather to remain hidden under the outer coating of the *opus quadratum*. The use of this type of ornamental cover could help to date the construction to a time previous to the Emperor Hadrian as at later times an *opus* would have been used which mixed courses of brick with those of ashlars, as can be seen in the "vallum" in England and in other contemporary constructions in Rome[50].

In the vaults of the rooms which are spread out over the three floors an *opus caementicium* was used made of pebbles and lime mortar.

Another important aspect of the appearance of the Roman lighthouse is the body of the tip corresponding to the rotunda, which was maintained, albeit with alterations, until Giannini's renovation. Cardinal Jerónimo del Hoyo (1612) spoke of this when he included a simple drawing in his book which, although it may seem a little idealised, presents this domed tip as being excellently made. Cornide Saavedra (1792) also spoke of the rotunda, commenting that it was still preserved when he began his study.

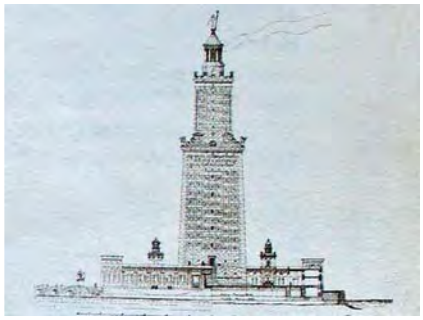
Tower of Hercules and its inscription by Jerónimo del Hoyo, 1612.

This part is, obviously, not exclusive to the Tower of Hercules. Similar examples can frequently be found in other lighthouses, such as in those of Messina and Laodicea, both of which have been lost, which were shown on different coins in the era of Sextus

[49] Latorre González-Moro, P.; Cámara Muñoz, L., "La restauración de la Torre de Hércules de La Coruña (Galicia-España)", in *Informes de la Construcción,* vol. 45, nº 427, septiembre/octubre, 1993, pp. 128-149.

[50] Urgorri Casado, F., "Problemas históricos en torno al faro romano de La Coruña", in *La Coruña, Paraíso del Turismo: La Coruña Historia,* 1990, s./n.

Pompey and of Domitianus or in idealised drawings of the Lighthouse of Alexandria, which are known to us thanks to the mosaics of Saint Mark's in Venice and the Mapamundi of the Beato del Burgo de Osma.



Hypothetical reconstruction of the lighthouse of Alexandria

Lighthouse of Messina.
Coin from the period of Sextus Pompey

Coin which represents
the lighthouse of Laodicea

Representation of the lighthouse of Alexandria, shown in a mosaic in St. Mark, Venice (Italy)

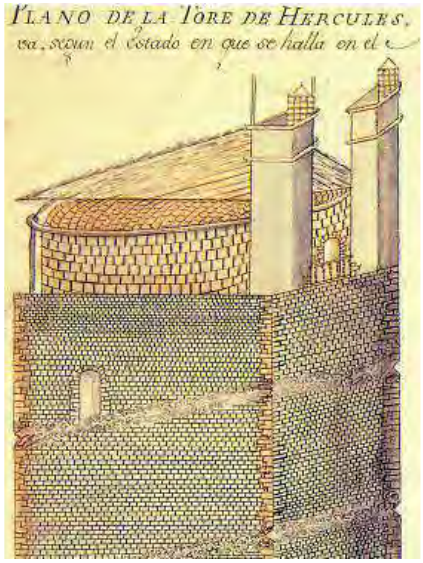
Map of the Beato de Burgo de Osma. Detail of the lighthouse of Alexandria. 1085

By the engravings that have been preserved of the *Tour d'Ordre*, situated in the port of Boulogne and built in during the reign of the Emperor Caligula in order to control, along with the lighthouse of Dover (England), the English Channel, it can be seen that it was topped by a domed body which has certain similarities with the case we are analysing here.

Tower of Order Lighthouse
Boulogne (France) 1649

Lighthouse of Dover (England)

All the writers have accepted the presence of a domed top of which the characteristics are known; "a circular base with a diameter of 8 yards, a height of 5 yards and, in addition, 2 square pillars of six and a half feet and two yards high over the 5 yards, where the lantern was placed" [51]. Therefore, we are dealing with a



Detail of the plan of the Tower of Hercules, probably by José Cornide, 1762

[51] Romero Masiá, A., "A restauración da torre de Hércules e o Real Consulado da Coruña", in *Fuentes para el estudio de la Torre de Hércules. Conmemoración del Bicentenario de la reedificación de la torre de Hércules,* A Coruña, Instituto "José Cornide" de Estudios Coruñeses, A Coruña, 1991, p. 163.

rotunda with an approximate diameter of 6.68 metres and a height of 4.18 metres, which would originally have been higher because in the 17th century, during the reforms carried out by the Duke of Uceda, the upper part was demolished in order to build a dome, which was reproduced in the engravings of the period.

In the oldest images that have been preserved of the Tower of Hercules, the rotunda and the marks of the ramp are the features that are most often repeated. We can find them around 1085 on the Mapamundi of the Beato de Burgo de Osma and around 1280 on the Hereford Map.

Mapa of the Beato de Burgo de Osma, 1085.
Detail of the Tower of Hercules

Hereford Map, Ca. 1280.
Detail of the Tower of Hercules

From the end of the 15th century the Tower became the symbol and emblem of the city, an icon which would be shown innumerable times on many different media, such as seals, Royal Mandates, nautical maps, coats of arms and to mark ownership by the town hall, distributed all over the city.

Seal of the Town Council plaque which shows the Tower of Hercules, 1448

Detail of the Tower of Hercules shown in an Executive Order of Carlos I, 1552

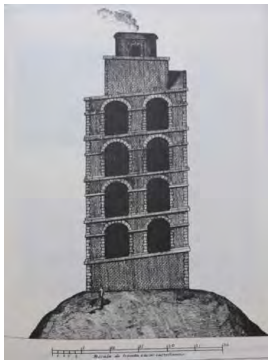
Map by P. Taxeira, 1634. Details of the city of A Coruña and of the Tower of Hercules.

Detail of the Tower of Hercules Santáns y Tapia. 1645

Shield of the Tower, shown in a house from the 17th

Ownership mark by the town hall

In the opinion of Cornide Saavedra[52], the rotunda would have been covered with a perforated dome with a wide opening in order to allow the smoke to escape and, above all, to make it possible for the flames of the fire to be seen from a great distance out at sea. According to this writer, the bonfire would have been lit on a platform which was elevated from the level of the floor and located near to the opening so that the fire would not go out even if the meteorological conditions were adverse. Similar arguments have been put forward by Hütter[53], who suggests two hypotheses:

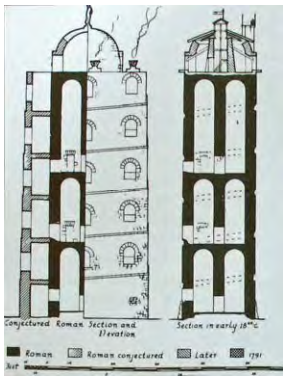


Hypothetical reconstructions which shows the rounded dome and the smoke coming from it. J. Cornide Saavedra. 1792

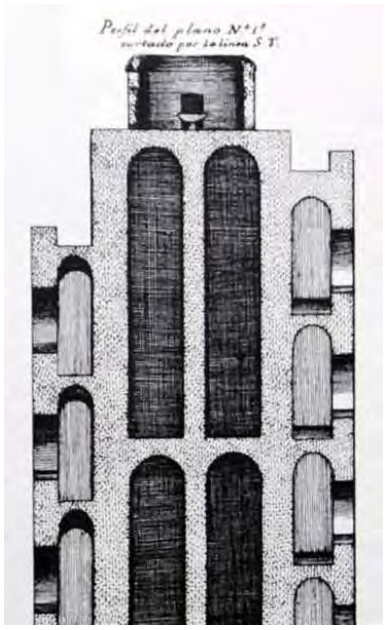
On the one hand, he considers that the rotunda, in addition to the two access doors, had a wide orifice in the cover through which a beam of light would be projected which would have been seen from a great distance. This argument, doubted by some writers, could be similar to what appears on a wall-painting recently discovered on a cistern in Cadiz which shows a lighthouse, possibly that of Gades, as a circular tower made up of several bodies joined together by exterior staircases leading to the upper section where what could be the bonfire of the lighthouse is shown.

A second option could have been the positioning of a brazier on a type of balcony looking out onto the sea. To a certain extent, this idea already appears in the drawing published by Father Flórez, in which a small terrace can be made out which is protected by a rail between the two small turrets of the times of the Duke of Uceda.

Detail of the upper part of the Tower of Hercules after the works made in 1685 Flórez, España Sagrada, 1752

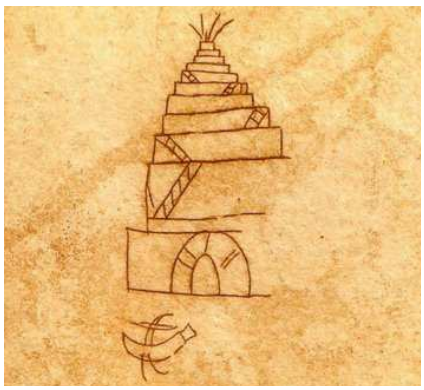


Hypothetical situation of the braziers, according to Hague-Christie



Hypothetical section of the Tower of Hercules, showing the hole in the vault and the platform used to raise the brazier. José Cornide Saavedra, 1792.

Hypothetical reconstruction of the Tower of Hercules. S. Hutter



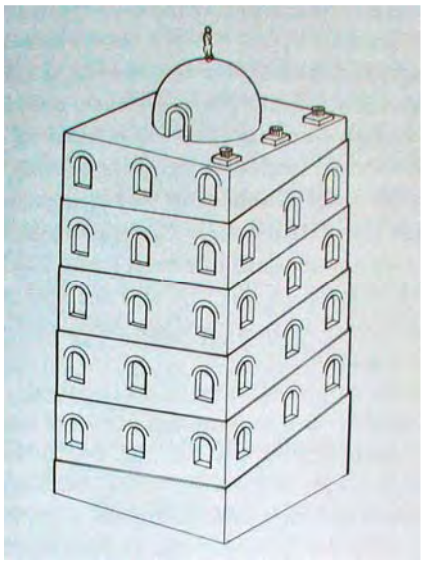
Possible lighthouse of Cadiz.
I-III century A.D.

[52] Cornide Saavedra, J., *Investigaciones…* (1792), p. 34.

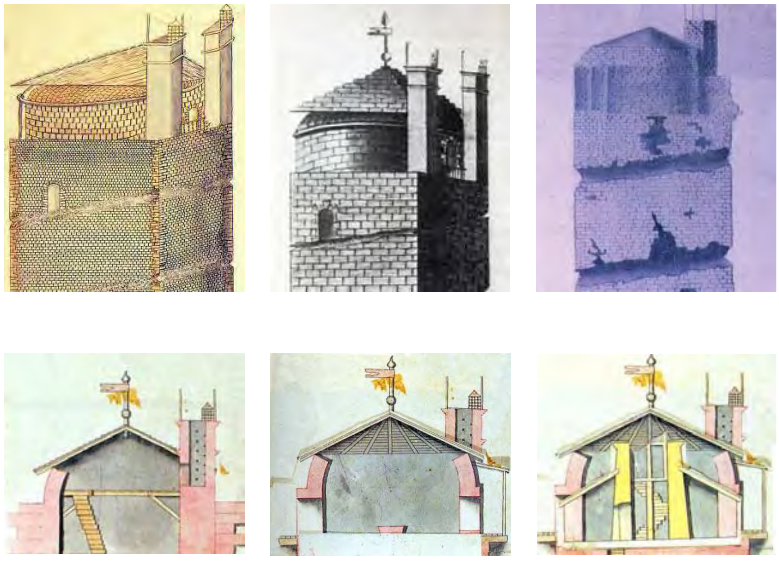
[53] Hutter, S: *Der römische Leuchtturm von La Coruña,* Main and Rhein, Ph. Von Zabern ed., 1973 (*El faro romano de La Coruña,* A Coruña, Ayuntamiento-Ed. O Castro, 1973), p. 38

This second hypothesis was taken up by D. Hague y R. Christie[54], who proposed a reconstruction of the elevation and section of the Roman tower with a closed dome crowned with a statue and two braziers situated in the open air on the upper platform. Along the same lines, K. Sutton–Jones[55] agreed with the idea of placing several braziers on the side which looks out onto the sea.

In this respect Sánchez Terry[56] y Sánchez García[57] recognised that the Tower of Hercules fulfilled a double function; that of a lighthouse and that of a coastal marker to facilitate daytime navigation. Both writers agree that the lighthouse's bonfire would have been lit when the atmospheric conditions allowed for navigation and when there was news of maritime traffic in the Artabrian Gulf. This meant that large amounts of wood, necessary to keep the fire burning, would not have been needlessly wasted. In their opinion, it is more than likely that the Tower also performed a defensive role and that the rotunda was also a lookout post from which the sea was scanned.



Hypothetical reconstruction of the Tower of Hercules. Sutton-Jones



Remains of the rotunda of the Tower of Hercules, shown in plans from second half of 18th century.

If this hypothesis were true, the rotunda would have been a closed structure and the fire could only have been lit in the space which remained between the external wall of the rotunda and the top of the prismatic platform in the area of the north and west faces, which are those that face the sea, and always within an easily controllable brazier. This new system of illumination would improve the visibility of the lighthouse from the sea.

Hypothetical reconstruction of the rotunda of the Tower of Hercules.
Sánchez García, 2004

Engravings of the Tower of Hercules.
18th century

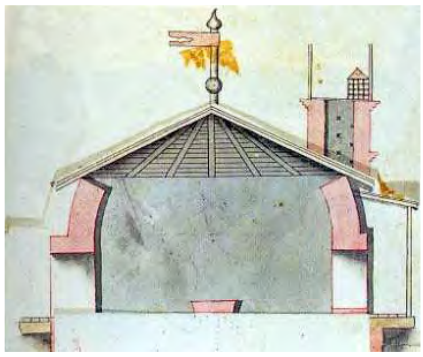
[54] Hague, D. B., Christie, R., *Lighthouses. Their Architecture, History and Archaeology,* Llandyul, Gomer Press, 1975, p. 69; Pérez Losada, F., "Entre a cidade e a aldea. Estudio arqueológico dos "aglomerados secundarios" romanos en Galicia ", in *Brigantium,* vol. 13, (2002).

[55] Sutton –Jones, K., *Pharos. The Lighthouses Yesterday, Today and Tomorrow,* Wiltshire, Michael Russel Ltd., 1985, pp. 8-9.

[56] Sánchez Terry, J. M., *Los Faros españoles: historia y evolución* , Madrid, M.O.P.U., 1991, p. 39

[57] Sánchez García, J. A., *Faros de Galicia…* (2004), 288.

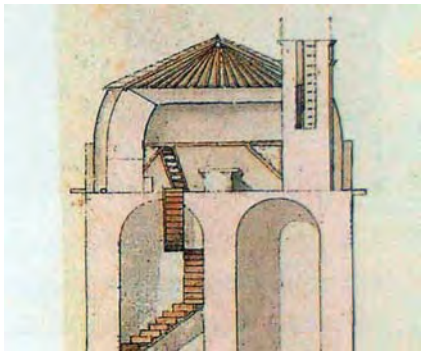
The plans and engravings that are preserved from the 18th century onwards show that the majority of the dome was in ruins or had disappeared with only the base of the rotunda remaining, covered with a conical top which was probably installed after the repairs carried out by the Duke of Uceda in 1685, along with the two small turrets placed facing the sea which appear in several drawings, such as in the plans of the National Library, those of Carlos Boysin and in the engraving which is kept in the archives of the Cathedral of Santiago, which was made by Allard[58].



Tower of Hercules. Section which shows the base of the brazier.
Carlos Boysin, 1733

B. 5. 1. The Base of the Roman Brazier.

In relation to the rotunda, we should take into account a strangely-shaped stone which Sánchez García[59] interprets as being the base of the lighthouse's brazier. The afore-mentioned sculpted stone is found in the centre of the rotunda in the elevations of Boysin (1733) and Ricaud (1772) and in a manuscript preserved in the Consulado del Mar it is explained how this brazier would have served to direct sailors before the small turrets of the reforms carried out by the Duke of Uceda were built.



Tower of Hercules. Section which shows the base of the brazier in the middle of the rotunda. B. Ricaud, 1772

This stone was probably rejected by Giannini when he built the octagonal body and the top of the tower and was abandoned in the area of the radio-lighthouse. In 1992, as a result of the restoration of the monument and its surroundings, it was found and today it is located in the lower level of the Tower.

It is a carved granite stone with two circular sides of differing diameters (76 and 118cm) which are linked by an irregular elliptical section 47cm in height. On the largest side there is a hollow of 34cm in diameter and 21cm deep which would have served to house to fire.

According to this same author, this piece could have been the base of one of the fires or of the only one in the Tower and would probably have been situated on the exterior of the rotunda on the northern face of the lighthouse's platform. An iron brazier or a stone structure would have been placed on it which would have housed the fire.

B. 6. The Tower at the End of the Roman Era. The First Literary References.

The first written references to the Tower date from the 5th century A.D., more precisely in the work *Historiarium adversus paganum* by Paulus Osorius, in which he states:

Views of the conical stone which served as the base of the brazier of the lighthouse

"Secundus angulus [Hispaniae] circium intendit, ubi Brigantia Gallaetiae civitas sita altissimam pharum et inter pauca memorandi operis ad speculam Britanniae erigit".

"The second angle of Hispania faces to the North, where the Galician city of Brigantia lifts up its tall lighthouse, which is worthy

[58] Allard, E., *Phares et balises. Les Travaux Publics de la France,* volume V. París, J. Rothschild ed., 1883 (París, Presses de l'Ecole Nationale des Ponts et Chaussées, 1995), p. 20.

[59] Sánchez García, J. A. (2004). p. 292.

of mention among very few things, to observe Britannia [from the sea]"[60].

It must be remembered that Osorius wrote from Hipona, in the north of Africa. His mention of the Tower in a place of preference, as a point of reference for a whole corner of Hispania, indicates to us that the monument was extremely well-known, if not throughout the whole Roman world then at least in the cities of the northern coast of Africa. And, as well as being known and loved, the words "tall lighthouse, which is worthy of mention among very few things" are expressive enough to outdo any other comment.

The mention made of the Tower as an observation post for the route towards England shows its importance as a landmark on the way north.

C. The Roman Lighthouse during the Middle Ages.

During the Middle Ages the lighthouse suffered a long period of abandonment, sacking and ruin. The decline of the Roman Empire and of its commercial networks necessarily brought about a certain degree of decadence as maritime traffic on the great routes practically disappeared in favour of coastal traffic of low tonnage, which was quite intense in interior waters such as the Galician estuaries.

Now in the Swabian era (5th-6th centuries), some historians, such as E. Ferreira[61], detect a slight upturn in commercial contacts, with routes now heading to the north of Europe, which could have taken advantage once more of the Tower's characteristics as a navigational aid.

Whether the lighthouse fire was kept burning every day or not, it seems beyond doubt that during the High Middle Ages the imposing presence of the Tower continued to play an important role as a daylight marker for sailors, becoming the main visual reference point to access Coruña's harbour from the windward side. So great was the significance of this monument that a series of place names soon arose which bore a direct relation to the Tower, such as "*Farum Brecantium", "Farum Precantium*" or simply "*Faro*" ("Lighthouse"). What is more, the town formerly known as *Brigantium* came to be known as Faro, at least from the 9th and 10th centuries, demonstrating its range in parallel with the name of *Far* which can be found in Scandinavian sagas[62]. At that time, the attacks of the Normans and the Vikings struck fear into the coasts of the south of Europe. On various occasions, enemy squadrons disembarked on Galician soil and some of these incursions were collected together in the documentation of the time. This is the case with the Chronicle of King Alphonse III, who alluded to a battle which took place in the year 846 close to the "*Farum*

Miniature of Alphonso III. 9th century

[60] Bello Diéguez, J. M., "La Torre Romana", in *Ciudad y Torre. Roma y la Ilustración en La Coruña,* A Coruña, Ayuntamiento de A Coruña, 1991, pp. 170-177.

[61] Ferreira Priegue, E., *Galicia en el comercio marítimo medieval.* A Coruña, Fundación Barrié de la Maza, 1988.

[62] Bello Diéguez, J. M. *La Coruña Romana y altomedieval…,* p. 9-11.

Brecantium" or *"Bregantium*" and where the Asturian king's troops succeeded in defeating the Norman hoards after having sacked and burnt their ships. This episode, however, did not represent an isolated incident but rather this type of attack is alluded to on numerous occasions, particularly in the years 854 and 866[63] when the Normans held the Kingdom to siege.

A dramatic process of decay of the old town took place related to these external threats and with the decline of both port and commercial activity; so much so that, if it did not completely disappear, it was overtaken in importance by a new population centre which sprung up deep in the estuary, named *Burgo del Faro*, in Culleredo. The decline in population in Brigantium determined that it would fall in status, going from being considered a town to become a *locus* and the lighthouse would come to play a more defensive role than one of signalling. Faced with the threats of both Normans and Muslims, the strengthening of this military connotation coincided with the start of the physical ruin of the Tower which, according to the archaeological excavations carried out at the base of the Tower, occurred around the 10th century.

The administrative district of Faro was, at that time, ownerless although at the end of the 10th century it was given over to the Bishop of Santiago de Compostela, to whom the monarchy of Leon had entrusted the defence of the Galician coasts. This donation took place in the year 991, when the king, Bermudo II, entrusted the lands of Faro and their "commissio" to the Bishop of Santiago. In the document there is express mention of the "Pinnam fabricatam ab antiquis hominibus farum Precantium", which is to say a tower built by the Romans, which is referred to as "pinnam" which, according to Bello Diéguez, alludes to the stones and tumbledown rocks of the initial construction. At that time, the peninsula of La Coruña held, as well as the lighthouse, the semi-populated remains of the Roman town and small settlements, farmhouses or villages, in which the inhabitants of the area had taken refuge in an attempt to protect themselves from the outside enemy.

Virtual reconstruction of the Tower as a ruin in the Medieval Era. Factoría Gráfica

As far as the remains of the Roman town of *Brigantium* are concerned, Díaz y Díaz argues that, in the 10th century, it came to be called Cesarea, the name with which it appears in the Crónica Rotense (10th-11th centuries) where Cesareo is identified as the founder of both Cesarea and Faro[64]. In another document a donation made by the king, Alphonse VII, in 1124 of various possessions of the bishopric of Compostela, reference is made to "*una pignam de dominio Cesareo",* which could seem to resemble the *Brigantium* of the Roman era. This new designation is no surprise if it is taken into account that the construction of the lighthouse was linked to the figure of Caesar from early medieval times. In fact, Moralejo Álvarez[65] states that the origin of the name

Discovery of the tomb of the Apostle St. James by Bishop Teodomiro

[63] Bello Diéguez, J. M. *La Coruña Romana y altomedieval…,* p. 88-89.

[64] Díaz y Díaz, M. C., *Visiones del más allá en Galicia durante la Alta Edad Media.* Santiago de Compostela, 1985, pp. 95-112.

[65] Moralejo Álvarez, S., "El mundo y el tiempo en el mapa del Beato de Osma", in Beato de Osma. Estudios. Valencia, 1992, pp. 35-58.

Cesarea must have been founded in a bookish form of Geography, both in its origin and in its end, which aimed to give prestige to the ruins of the lighthouse. In any case, the history of the town was, once more, intrinsically linked to the lighthouse, in such a way that the former came to change its name from Brigantium to Cesarea in an attempt to give value to the remains of such a legendary construction.

On numerous occasions, documents from the High Middle Ages allude to the existence of a *Castellum* which was built in relation to the Tower itself as a reinforcement aid and as a connection between the population of the old town and the old lighthouse. Its exact location is not known but we do know that it was situated close to a natural inlet, which could possibly be that of San Amaro. This fort was described by Father Flórez[66], who documented the existence of some remains although without making it clear where they were located. According to Barral Ribadulla[67], the location could have been the piece of land now occupied by the convent of Santo Domingo, whereas Sánchez García argues that it was in the area of Atocha-Santo Tomás[68]. Whatever the truth may be, the construction of this building could well have accelerated the process of decay of the Tower by using some of its stone blocks for its walls.

The destruction of the outside ramp of the Tower can be confirmed thanks to the account of Trecenzonio[69], which has already been mentioned as one of the legends at the beginning of this chapter. This document dates from the beginning of the 11th century and describes the ruined state of the *Farum Brecantium* at that time.

This deterioration must have become more noticeable throughout the 11th and 12th centuries, when the population centre began to recuperate although this situation would not have stopped the Tower being used as a lookout post, for which purpose it would probably have been equipped with ladders or wooden structures to enable access to the top, at least until the start of the 12th century.

In a document attributed to Alphonse V, dated in 1019, in which the donation of Bermudo II to the Church of Compostela is confirmed, an interesting reference to the Tower and its immediate surroundings can be found which speaks of the *"…pena de Faro cum suis comitatibus et casatis et hominibus de alumenariis, quodmodo in castris resonat*", which is to say that the lighthouse is referred to as "penna", or a mound of stones and mention is made of a series of settlements surrounding it. Especially noteworthy are the "hominibus de alumenariis", which have been interpreted as being watchmen stationed in the Tower who would have

[66] Florez, E., *España Sagrada,* XIX, chapter 2, 18.

[67] Barral Rivadulla, M. D., *La Coruña en los siglos XIII al XV. Historia y configuración urbana de una villa de realengo en la Galicia Medieval.* A Coruña, Fundación Pedro Barrié de la Maza, 1998, p. 84.

[68] Sánchez García, J. A., *Faros de Galicia*… (2004), p. 296.

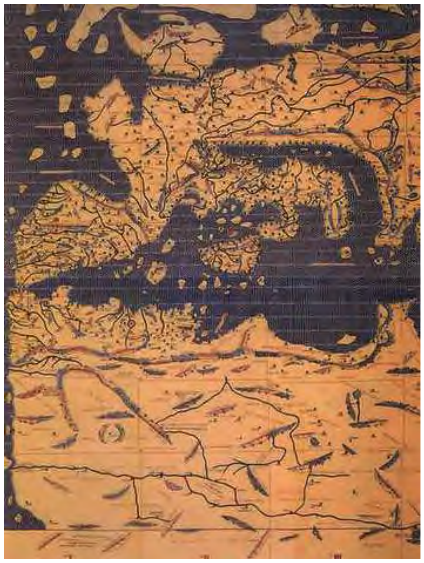
[69] Díaz y Díaz, M. C., *Visiones del más allá en Galicia durante la Alta Edad Media,* Santiago de Compostela, Bibliófilos Gallegos, 1985, pp. 95-112.

communicated with the town and with different points of the area around the lighthouse by way of light signals to tell of any sightings or to warn of any external threat.

In the *Historia Compostelana*, which dates from the year 1121, reference is made to the area of Faro as a result of confrontations between Queen Urraca and Archbishop Gelmírez. Four years later, the Archbishop himself handed over this land to the Crown in exchange for that of Tabeirós, with the argument that *"the fort of the lighthouse was located too far away from the estate of Santiago and was of almost no use (except for the name itself) to the Archbishop. I, therefore, had to spend a lot of money every year on stipendiary knights to watch and guard it"*[70].

This reference in the *Historia Compostela* is of great interest because it speaks of the "fort of Faro" which, in the opinion of Campelo[71], refers to an element situated on a hill or high point of the land. This is something to bear in mind because in the engravings of the Tower prior to Giannini's reforms, the remains of the lighthouse appear on a prominent hill. Secondly, reference is made to the stipendiary knights that watched and guarded the old lighthouse and that supposed a significant financial burden for the archbishopric. These facts seem to call into question the state of abandonment and decay which some writers have attributed to the Tower throughout the entire Middle Ages. The presence of stipendiary knights would surely have prevented the theft of materials and constant pillaging which some sources refer to.

In addition to these interesting references to the monument in Castilian records of the time, we have found some references in Muslim chronicles which point towards the importance that the lighthouse continued to have as a defensive element in Medieval times, being known, thanks to its uniqueness, beyond the realms of Christianity. The Muslim world documented the Tower in some of its chronicles, such as the *Description of Spain* by Al-Edrisi, a document of the 12th century which speaks of the Tower being a "great watchtower" and a "castle of the lighthouse" which presided over the town and estuary of the locality[72]. This information was probably taken up by Arabic cartography because in some mapamundi of the time there is a structure in the extreme north-western corner of the Iberian Peninsula which could correspond to the Tower itself.


Imago mundi. M. Al-Edrisi, 1099

The good workmanship of the Roman structure kept the Tower, which would come to be known from the 12th century as "*Castellum"* or *"Castrum"* as it was called in the *Historia Compostelana*, and later as "*Castello Vello*", from disappearing. However, in contrast to what occurred in the case of other ancient lighthouses, such as those of Ostia, Siracusa and Dover, the

[70] *Historia Compostelana,* Book II. Chap. LXXXII.

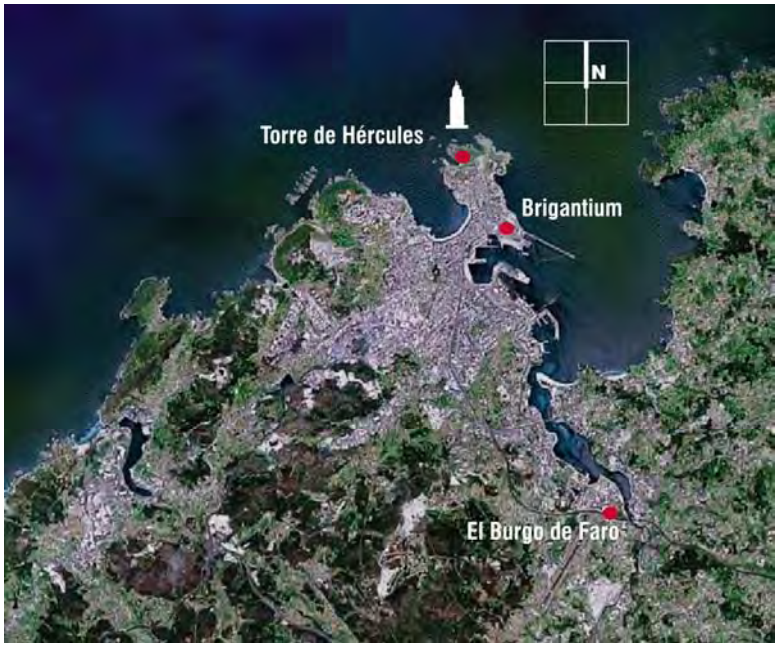
[71] Campelo, J., (O.F.M.) "Notas aclaratorias e introducción " a la *Historia Compostela o sea hechos de D. Diego Gelmírez, primer arzobispo de Santiago,* Santiago de Compostela, 1950, p. CXLII.

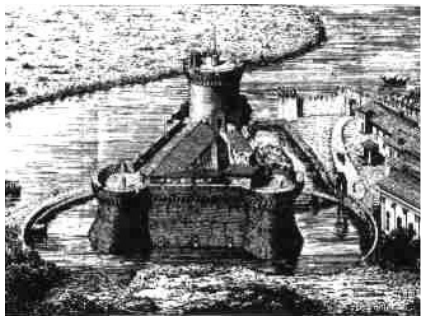
[72] Al-Edrisi, *Descripción de España,* Madrid, Imprenta Real, 1799, pp. 110-113.

Tower of Hercules did not give way to a fortification but rather was, in itself, the *Castellum*. This hypothesis is confirmed by the fact that the excavations carried out around it have only revealed the remains of a poor domestic structure dedicated to kitchens and other outbuildings, which were raised on upright wooden feet. This shows that the guardsmen and watchmen would have been accommodated in the domed interior chambers.

Throughout the reigns of Ferdinand II and Alphonse IX, the Castilian monarchs attempted to establish new towns, particularly on the fringes of the Kingdom, with the political aim of favouring the strengthening of royal power in opposition to existing feudal lords in Crown territories. In addition, they promoted the creation of a new urban network, which appeared around the same time that trade was reborn in the second half of the 12th century. Both circumstances were present in the peninsula of La Coruña, which made it an ideal location for the founding of a free town. Barreiro Fernández has suggested that it was in the 12th century, during the reign of Ferdinand II, from 1164-1166[73], that the town began to be repopulated although it would be in the times of Alphonse IX that this recuperation was reaffirmed.

In documents dating from around the year 1200 the name "*Burgo de Faro Novo"* appears, which would make reference to a new population centre which must be distinguished from that which already existed, known as "*Burgi veteris de Faro",* which was to be found deep in the estuary. This newly-founded settlement arose on the remains of ancient *Brigantium*, which had come to be known as Crunia, which a charter document from the year 1208 states that is "*apud turrin de Faro*", that is to say "next to the tower of the lighthouse". So, once again, it can be seen that the city and the Tower go hand in hand.




Castle of Ostia. Fort built in the medieval era over the Roman lighthouse

Castle of Syracuse (Italy) built over the old lighthouse

Remains of the Lighthouse of Castle Hill, Dover (U.K.) built over the Roman lighthouse

Image of King Alphonso IX.
13th century

[73] The name of Crunia appears in the 'Crónica del Pseudo Turpín', one of the books of the *Historia Compostelana.*

Beginning in the 12th century, and above all during the Low Middle Ages, Galicia in general, and A Coruña in particular, became immersed in a process of economic recovery which spread from the Atlantic to the Mediterranean related to the rise of the pilgrimage to Santiago de Compostela and was due to the diversity of the routes, some of which, for example the so-called English Route, were maritime routes which disembarked in Coruña and continued overland to the tomb of the Apostle James. But whilst these changes were assimilated by an ever-increasing population, the Tower continued with its own evolution. In the nautical maps of the end of the Middle Ages references to it as a "guard tower"[74] and a "sublime tower" [75] appear. However, the fact that it had been converted into a watchtower and observation post and the use of light signals from its highest point, albeit with a possibly defensive aim and to warn of attacks lent the Tower the interesting facet of having continued to be a functional structure over the centuries.

The English route to Compostela. Maritime route from the south of England to A Coruña

In 1208, King Alphonse IX granted the Charter of Benavente which supposed the recognition of Crunia as a city[76]. It was a time of development and urban growth on the back of the upturn in trade and maritime traffic, which was especially intense in Compostela's jubilee years during which boats from the North docked in Coruña full of pilgrims anxious to visit the Apostle James' tomb. These links were frequent with the coasts of Brittany and England, the areas with which the majority of trading took place.

It was within this context that the Tower, now known as the "Turrin de Faro", underwent a change in its defensive role when the city carried out significant changes in its system of fortification. In the 13th century, the old town gained the protection of a wall which surrounded the urban centre and the port. This fortification, of

[74] Venetian nautical map of 1400.

[75] Crónica de Emo.

[76] In 2008 the City Council of A Coruña will commemorate the VIII Centenary of the concession of the Foro de Benavente with a programme of cultural acts.

which parts are preserved in the Gardens of San Carlos, coexisted with a second defensive enclosure, built in the High Middle Ages, which has not been located although it is known to have been close to the area of Atocha-Santo Tomás. Considering these circumstances, the Tower, due to its deterioration, must have fulfilled a secondary role.

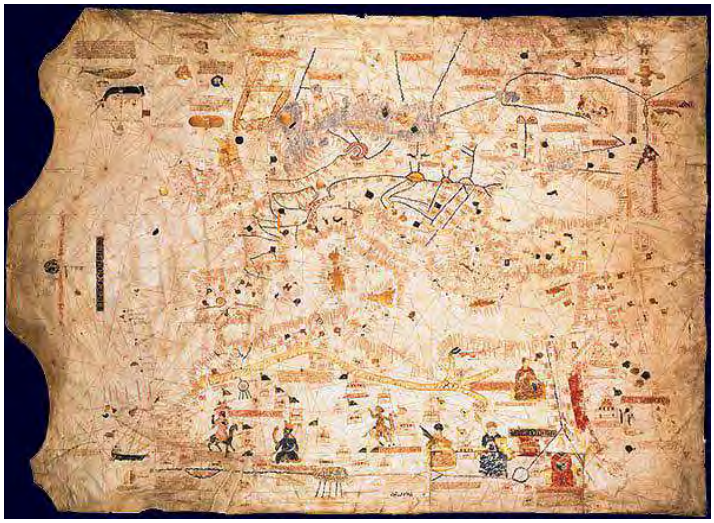
The Gardens of San Carlos. Remains of the old fortress

This loss of usage would explain, as Cornide Saavedra[77] points out, why the stones of the Tower were reused in the new buildings which were erected in this period, such as the fort of the old town, the Collegiate Church of Santa María del Campo and the church of Santiago where a close look would perhaps allow us to identify part of the stone as being of Roman origin.

For these reasons, one has the feeling that the surroundings of the Roman lighthouse became a makeshift quarry from which a large number of blocks of stone of a considerable size from all four facades of the Tower, which had collapsed taking with them the access ramp to the rotunda, were extracted.

The Collegiate Church of Santa María del Campo.
A Coruña. 13th century

Mutilated by the collapse of a large part of its ramp, the Tower survived and continued to carry out its role of watchtower and maritime signpost, above all during the period of economic upturn experienced by the city at the end of the 14th century, when the Herculean port became one of the most cosmopolitan in the Kingdom of Castile with boats putting into port after voyages from the Baltic and the Mediterranean. Taking this into account, the Tower's inclusion in nautical maps as a point of reference is unquestionable. Sailors used these documents as navigational aids and the presence of the Tower bears witness to its function as a maritime way marker. Bearing this in mind, it must be remembered that although the external ramp had deteriorated and the rotunda of the lighthouse could not be reached, it is quite possible that an alternative access route may have been built to gain entry to some of the upper chambers which would always have been visible from the sea due to the lighthouse's privileged position raised 57 metres above sea level.



Navigation map by Maciá de Viladestes, 1435

Elevation and chancel of the Church of Santiago in A Coruña. 13th century

[77] Cornide Saavedra, J., *Investigaciones sobre la fundación y fábrica de la Torre llamada de Hércules, situada a la entrada del puerto de La Coruña,* Madrid, Oficina de Don Benito Cano, 1792, p. 25.

The fact that Medieval documents refer to the “Farum Brigantium” and that on the Mapamundi of the Beato de Burgo de Osma (1085) the Lighthouse of Alexandria and the Tower of Hercules appear as the only two noteworthy examples of the known world, show that the Tower was not just a mere souvenir of an ancient lighthouse in the Middle Ages, a huge work of Roman engineering or a legend of the past, but that it continued to play a leading role in the day-to-day lives of the people of the north-west of the Peninsula. It is also significant that in the Beatus’ work the lighthouse appears with flames at its tip, which would seem to confirm that, at the end of the 11th century, it continued to perform its duty although, of course, it is possible that the system of illumination was different to that employed in ancient times. The Tower was, however, still fulfilling its original task.

It is also necessary to bear in mind that, during the Middle Ages, the custom of beacons and lanterns on already existing towers became widespread. Most of these towers were built to fulfil another function but were adapted to serve as lighthouses. This was the case with the towers of Calais (1290), Garrot, the prison of La Rochelle (1468) and Ile de Ré as well as with the Belfries of Belgium and France, which were declared a World Heritage Site in 2005.

Map of the Beato de Burgo de Osma, 1085. Detail of the lighthouse of Brigantium

Lantern tower of La Rochelle (France)

Le phare des baleires. Ille de Ré (France)

Bell tower of Antwerp (Belgium)

Bell tower of Ghent (Belgium)

Bell tower of Dunkirk (Belgium)

Bell tower of Arras (Belgium)

Map of the Beato de Burgo de Osma, 1085

Detail of the Tower of Hercules shown in the Map of the Beato del Burgo de Osma, 1085

These systems of illumination were not very powerful but they did serve as a warning system for the surrounding population as regards possible dangers either from the sea or by land. This signalling system had been known since Roman times. In fact, on Trajan's Pillar there is an image of the lighthouse of Centumcellae with its lantern.

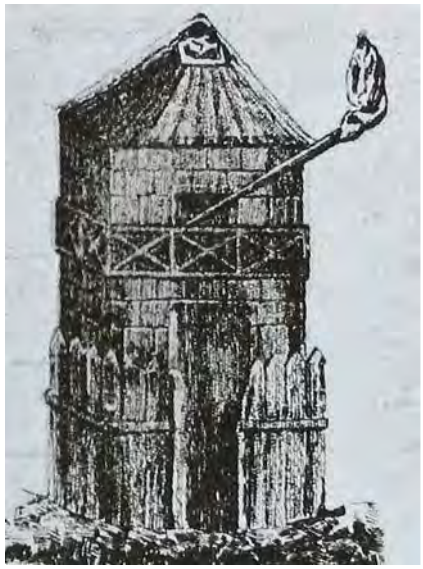
In order to sustain these lanterns, a wooden or iron hoist was used, which could not have been a rigid structure as the fire had to be lit whenever it was necessary. Sánchez García has proposed a second hypothesis regarding the tapered piece found in the immediate proximity of the radio lighthouse, arguing that it was the counterweight for the lantern's hoist which appears in drawings from the 16th century.

It is paradigmatic that, as a counterpoint to the physical deterioration suffered by the Roman lighthouse, around the year 1230, the symbolic image of the Tower, born from an account told by King Alphonse X the Wise about the origins of the building in the *Estoria de Espanna,* began to arise. This image linked the Tower with Hercules himself and with his Twelve Labours, perhaps one of the most popular mythological episodes in medieval society. All of this invention must be understood within the context of the birth of the new free town Crunia, which needed an epic past to legitimate its present. From the middle of the 13th century, the Tower of Hercules was also known as the "*Castelo Vello*"[78], and even as "the watchtower of the old castle".

According to Tettamancy[79], in 1470 Galicia experienced the revolt of the *Irmandiños* and during the conflict the Brotherhoods demolished and razed to the ground a large number of Galician forts. They also tried to demolish the Tower, known as the "Old Castle" but, due to the resistance and solidness of the Roman craftsmanship, they were not able to achieve their goal so, instead, they opted to disable the staircase so that it could no longer perform its function. If Tettamancy's words are true, at the end of the 15th century the old Roman lighthouse still had a point of access to the upper section although it was most probably not the exterior ramp. Rather, he could have been referring to any other practical system which may have entailed a risk or danger in the eyes of the insurgents.

C. 1. The Iconography of the Tower of Hercules in the Medieval Period.

Perhaps to draw a line under this period we could take a look at the appearance of the Tower in the three medieval images that have been preserved: The Mapamundi of Osma Beatus (1085), the



Representation of the lighthouse of Centumcellae on the Trajan's Pillar. 2nd century A.D.

Cantigas de Santa María by Alphonse X The Wise

Page from General Chronicle or Estoria de Espanna by Alphonse X The Wise

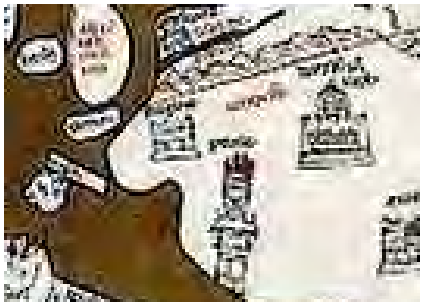
[78] In documents of the end of the 15th century, preserved in the records office of the Convento de las Bárbaras in La Coruña. *Vid.* Barral Rivadulla, M. D., *La Coruña en los siglos XIII al XV. Historia y configuración urbana de una villa de realengo en la Galicia Medieval.* A Coruña, Fundación Pedro Barrié de la Maza, 1998, p. 149.

[79] Tettamancy Gastón, F., *La Torre de Hércules. Impresiones acerca de este antiquísimo faro bajo su aspecto histórico y arqueológico,* A Coruña, Imp. Roel, 1920, p. 135.

Hereford Map (1280) and the seal of the Town Hall (1448). Of these, the Mapamundi and the seal seem to show a view which is closer to the reality than the Hereford Map, which shows an idealised image of the lighthouse which is difficult to interpret.

Map of the Beato de Burgo de Osma, 1085. Detail of the Tower of Hercules

In both the Mapamundi and the seal, the Tower is represented as a building crowned with a cylindrical structure finished off with a dome. Taking into account the archaeological data, we know that the base of the building was square. However, in these images it is not possible to distinguish this structure clearly and one has the sensation of the entire ramp having been lost without leaving a trace, which is surprising if we compare these examples with the Tower that appeared in the letter of Charles I dated 27th August 1552[80], in which the ascending spiral groove accessing the top can clearly be seen.



Hereford Map, Ca. 1280. Detail of the Tower of Hercules

Seal of the Town Council plaque which shows the Tower of Hercules, 1448 Archivo Municipal de A Coruña

Detail of the Tower of Hercules. Executive Order of Carlos I, 1552. Archivo Municipal de A Coruña

D. The Resurgence of the Tower of Hercules Lighthouse in Modern Times.

It was during the 16th century that the first steps were taken towards restoring the monument which would allow the Roman lighthouse known as the Tower of Hercules to become one of the main bastions for the orientation of vessels sailing in the Atlantic.

In 1553, the City Hall of Coruña, as the owner of the property, decided to put an end to the serious decay that the Tower, then known as the "*Castillo Viejo"* (the "Old Castle") was suffering. Steps were taken to prohibit the extraction of blocks of stone from the Roman structure, which would be punishable by the payment of a fine, because the Tower's stability was being put in danger by the removal of stones which formed its foundations, the beginning of the ramp and the walls which had formed part of the lighthouse's facades[81]. This pillaging was not new as it was a cheap way of obtaining stone for new buildings. At that time, the Tower's peninsula had become the best quarry in the city.

At the same time that the town council outlawed the sacking of the old lighthouse, it implemented a series of measures aimed at

[80] Royal Mandate of Charles I dated 27th August 1552. Archivo Municipal de A Coruña. Pergaminos, nº 45.

[81] Bello Diéguez, J. M., "La Torre de Hércules en la Edad Moderna (siglos XVI-XVIII): Aportación Documental", in *Fuentes para el estudio de la Torre de Hércules. Conmemoración del bicentenario de la reedificación de la Torre de Hércules,* A Coruña, Instituto "José Cornide" de Estudios Coruñeses, 1991, p. 33.

cleaning up the state of the remains. In 1537, mention was made of improving the staircase and door of the Tower. In 1553, repairs were made to the foundations to prevent the structure from weakening. In 1569, timber was freed up to make some new stairs. So, it can be seen that a concerted effort was made by the authorities to restore the building with the aim of putting it to work again.

At the same time that these reforms were taking place, the staff needed to form a group of watchmen was recruited from the municipal work groups who were required to have previous experience at sea. It could be said that "men of the sea" were sought to work in the watchtower.

It is possible that the lighthouse was put to work again during this phase of restoration because maritime traffic intensified significantly due to trading with the rest of the Peninsula and with Europe and America. La Coruña became, at that time, a strategic Atlantic port thanks to its privileged position inside a wide estuary and sheltered from the ocean storms, albeit with the added difficulty of having a narrow entrance which made manoeuvres in the port difficult for those sailors that did not know that stretch of coast. Given these circumstances, it would seem clear that the town council, when it began these timid improvements to the Tower, was thinking of regaining maritime use of the old lighthouse, which would serve as a way marker, a watchtower and as a maritime signalling post thus taking up again its old role of using its light to guide ships passing through the Artabrian Gulf.

Throughout the course of the 16th century, the Crown of Castile used this port on several occasions, a fact which proves its excellent conditions for navigation. It is known that on 6th January 1506 a Flemish armada put into port in La Coruña accompanying **Prince Philip the Handsome** and **Juana the Mad** when they arrived to take charge of the throne of Castile. Also, on 25th May 1520, it was **Charles I** who set sail from La Coruña on route to Aachen to be crowned Emperor of the Holy Roman Empire. On 16th July 1554, Prince Philip, the future Philip II, left the port in command of a squadron made up of 110 vessels which accompanied him to England, where he was to be married to the Queen, **Mary Tudor**. In addition, during the reign of the Habsburgs, La Coruña became the base of the Spanish Navy in the Atlantic and it was from this port that the squadrons which were to participate in the wars against France and England in the 16th and 17th centuries set sail. Indeed, the most famous incident occurred when the 137 vessels making up the "Grande y Felicísima Armada", also known as the **Spanish Armada**, left the port of Coruña in 1588 with the intention of invading England although it was never able to fulfil its aims. It is clear that the great strategic value that this enclave had for the Crown had a direct influence on the many attacks suffered by the town, such as that of the English pirate **Francis Drake** (1589), the French siege of 1639 and the attacks of the Quadruple Alliance in 1719 and 1726.

For a short period of time, between 1520 and 1524, Coruña even dreamed of having its own *Casa de Contratación* (House of Trade) which, like the one in Seville, would have centralised the trade in

Engraving of A Coruña. 18th century

The Spanish Armada. Aert van Autum.

Drake's troops attack the Pescadería, 1589

María Pita leads the defense of the city against the Drake's troops.

Drawing of the Tower of Hercules.
J. Cornide. 1792

spices from the Malacca route. So it can be seen that city life was based on the sea and the activity in the port required the lighthouse to be put to work again.

In 1550, Licenciado Molina, in his *Descripción*[82], called for a light to guide the boats so it can be assumed that, at that time, the lighthouse was still not working. Traditionally, historians have claimed that the Tower stopped functioning as a lighthouse from the moment that it lost its external ramp and access to the lantern was made impossible. That is, until 1685, in the times of the Duke of Uceda, when the vaults were perforated and the interior stairway permitting access to the top of the building was built. However, this view must be revised. Firstly, because there is no evidence to allow us to state unreservedly that the Duke of Uceda's stairs were the first to permit access to the rotunda. As we have seen, in 1537, the town council ordered repairs to some stairs, although these could have been those accessing the lower chambers, or not. What is clear is that in 1569 wood was issued to make stairs, which leads us to suggest the hypothesis that we have been defending throughout this section, that prior to 1685, the Tower already had an access route to the upper chambers which enabled a lantern to be lit. It is significant that in the **Royal Mandate** of Charles I dating from 1552, of which mention has already been made, the Tower appears as a lighthouse, with its lantern alight and hanging from a hoist, an image that is repeated in the city's coat of arms.

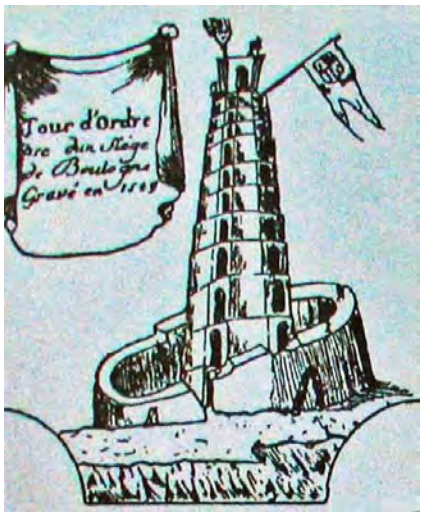
With regard to this, Tettamancy[83] presents an interesting piece of information; in 1589 when the English pirate Francis Drake laid siege to the city, a group of soldiers took refuge in the Tower and gained a stronghold until they were forced to surrender following a severe siege. They resisted for nine days, during which they bore the suffocating pressure of the pirate troops. They probably hid throughout the siege in the upper chambers, which were difficult to enter, which proves that, at least in exceptional circumstances, it was still possible to get to the top, possibly by way of the wooden stairs that the town council had financed in 1537 and 1569.

Tettamancy[84] also points out that part of the stone of the "high and wide stairway of the fort or castle of Hercules" was used in the construction of the Castle of San Antón, to where it was transferred by barge. It is true that in 1538 it had been decided that the construction of a fort should be commenced on the island of San Antón in order to defend the port but the most likely situation is that the stones used came from the fort of the Old City, which had been offered to the Captain General of Galicia in 1528. The protectionist attitude of the town council ensured that the monument continued to stand because, if the population of Coruña had continued to

Detail of the Tower of Hercules. Executive Order of Carlos I, 1552. Archivo Municipal de A Coruña

Aerial view of the Castle of San Antón. A Coruña

Castle of San Antón. A Coruña



Tower of Order Lighthouse. Boulogne (France, 1649)

[82] Molina, B. S. de, *Descripción del Reyno de Galicia y de las cosas nobles…* (1550), f. 19.

[83] Tettamancy, Gasón, F., *La Torre de Hércules. Impresiones acerca de este antiquísimo faro bajo su aspecto histórico arqueológico,* A Coruña, Imp. Roel, 1920, p. 135.

[84] Tettamancy, Gastón, F., *La Torre de Hércules. Impresiones acerca de este antiquísimo faro bajo su aspecto histórico arqueológico,* A Coruña, Imp. Roel, 1920, p. 140.

extract ashlars, the fate of the Tower would have been the same as that of the Tour d'Ordre and the Turrens Ardens of Boulogne, which collapsed in 1644 after its foundations had become unstable due to the continued extraction of stone.

The appearance of the Tower of Hercules at the end of the 16th century bore witness to the improvements carried out over the century which forged the recuperation of the lighthouse. We can analyse its image based on a series of very interesting testimonies:

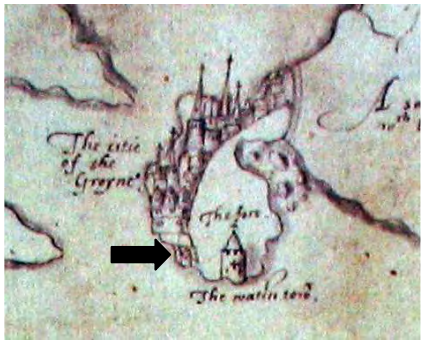
- The Royal Mandate of Charles I (1552)[85], which we have already referred to and which served as the basis for the creation of the heraldic image of the Tower. This shows the Tower with no apparent signs of the exterior ramp which left its mark on the central nucleus of the structure. As far as the upper part is concerned, the rotunda and the lantern with the flame lit have been preserved. This model is repeated with virtually no variation on several heraldic coats of arms.

Detail of the Tower of Hercules. Executive Order of Carlos I, 1552. Archivo Municipal de A Coruña

- Map of La Coruña and its surroundings in Galicia, north-west Spain (1589)[86]. This is a highly interesting source despite being quite unrealistic. The Tower appears under the name of The Watch Tower and seems to be a battlemented tower with a loophole on its front in the form of a cross. The remains of the ramp are not shown and at the top there is a conical cover which recalls those of a church's belfry.

- Descripción de España y de las costas y puertos de sus reynos (1634)[87] (Description of Spain and of the coasts and ports of its kingdoms). This image is more realistic as it shows the body in a straightforward manner, without remains of the ramp apart from the groove and with the rotunda at the top. The image is accompanied by a text which emphasizes the need to recuperate the Tower as a lighthouse:

  "And to the West, a quarter of a league from the city, resting above the sea on a mount, lays a tower known as the Tower of Hercules. It is more than twenty stadia in height and has windows on all four sides. The construction, in stonework and mortar, and the antiquity of this tower show it to be the work of the Romans. From it, the sea reaches as far as the eye can see due to its great height and its



Plan of the Ártabro Gulf, conserved in the British Library. Ca. 1589
Details of The Watch Tower

Plan of the city of A Coruña. P. Taxeira, La Descripción de España y de las costas y puertos (1634)

[85] Royal Mandate of Charles I dated 27th August 1552. Archivo Municipal de A Coruña. Pergaminos, nº 45

[86] British Library, Manuscripts. Chart of the part of Galicia about the Groyne (Coruña). Cotton August, I, ii, 112. Made known by Vigo Trasancos, A. (dir.), Planos y dibujos de arquitectura y urbanismo. Galciia en los Siglos XVIy XVII, Santiago de Compostela. Consello Galego de Colexios de Aparelladores e Arquitectos Técnicos. 2003 (CD-Rom)

[87] Pereda F., Marías, F. (eds.) *El Atlas del Rey Planeta. La "Descripción de España y de las costas y puertos de sus reinos" de Pedro Texeira (1634),* Madrid, Nerea, 2002, p. 328.

location on the highest piece of land. Many fables and tales are told of it. But what is true is that it was built to guide seafarers that navigated that sea at night should they have wished to put into port as harbour beacons are used today in many places. The whole of this tower's outside spiral staircase, which reached to the top, has been broken down to make use of the stone, something which is very badly considered, as such a great antiquity, which served as an ornament to ennoble that city, should rather have been preserved..." (Pedro Texeira).

Detail of the city of A Coruña and the Tower of Hercules. P. Taxeira, La Descripción de España y de las costas y puertos (1634)

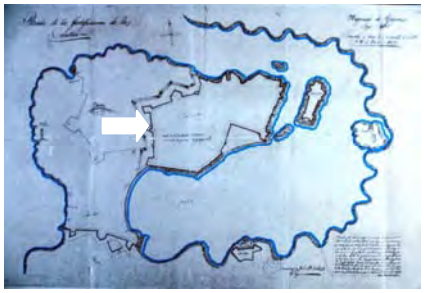
- Santáns y Tapia's plan of La Coruña (1645)[88] is also of great interest as the Tower of Hercules, yet again, is treated independently and in great detail, albeit from an idealised point of view, representing the Tower as a structure with apparent remnants of the ramp and with the rotunda still preserved with an opening at the top. In the caption accompanying the drawing, the structure is named as the Tower of Hercules.

- Manso Zúñiga's map (1667); in this case the Tower is again shown along with a series of fortifications to defend the city although it is mentioned independently thus proving its relevance as a watchtower.

Plan by Santáns y Tapia, 1645. Detail of the Tower of Hercules

- Anonymous plan of La Coruña (1669) [89]; this is a very brief view of the city which shows a plan of the defences and an elevation of the Tower of Hercules, which has been stripped of its exterior facades and the ramp, leaving only the internal nucleus and the rotunda. No remnants of the ascending spiral groove can be seen on the walls, neither is there any reference to the windows or access doors.

  The presence of the old lighthouse on nautical maps and in cartography of the end of the 16th century prove the growing importance of the monument as the 17th century progressed, when its significance transcended the natural borders of the Kingdom, as is demonstrated by the fact that it is included on French and English maps, both countries that were potential enemies of Spain at that time. The images of the Tower that are preserved in the Descripción del Reino de Galicia (1598); Gallaecia Regnum (1600); Gallicia, legio et Asturias de Oviedo (1606) and in Descriptio Gallaeciae y Asturias (1608) are also of great interest.


Plan by Manso Zúñiga, 1667

Anonymous plan of A Coruña, 1669

[88] Archivo General de Simancas. Mapas , planos y dibujos. XI-88. G.A. leg. 1.485. Plano de Santáns y Tapia.

[89] Archivo General de Simancas. Mapas, planos y dibujos. XXXVI-11. G.A.. Leg. 2.218.

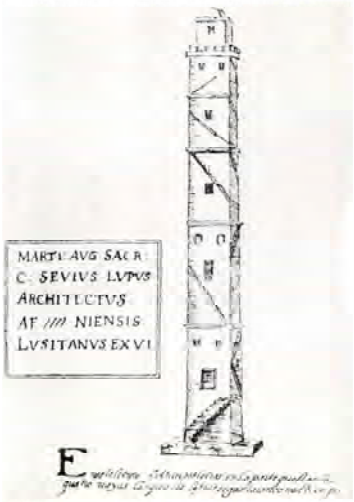
Descripción del Reino de Galizia. Ca. 1598

Gallaecia Regnum, ca. 1600

Gallicia, Legio, et Asturias de Oviedo, 1606

Galecia: Descriptio Gallaciae et Asturien Hispania, 1606

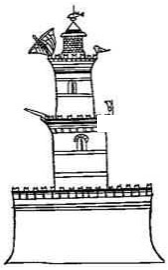
- Drawing of the Tower of Hercules in the Memorias del arzobispado de Santiago de Compostela (1612), by Cardinal Jerónimo del Hoyo. Compared to previous representations, that which is shown in this work is an idealised vision of the appearance that the monument could have had in Roman times. The drawing appears complete with the transcription of the commemorative inscription that Gaius Sevius Lupus dedicated to Mars Augustus. The Tower is composed by the superposition of five bodies decreasing in size, crowned by a rotunda which sits on a terrace. The route of the external ramp has been reconstructed very schematically but without coherence, likewise the various openings, which are distributed neatly although not in any way that corresponds to reality. The picture is more reminiscent of the Lighthouse of Genoa or that of Livorno than the Tower of Hercules.



The Tower of Hercules and its inscription. Jerónimo del Hoyo, 1612

D.1. The Reforms Carried Out by the Duke of Uceda (1685)

The years went by without significant changes being made to the old Roman lighthouse, until the end of the 17th century, when Father Francisco Negreiros appeared on the scene. He was a strange character who was greatly interested by the Tower, being an enthusiast of antiquities, and was a key player in the restoration of the Tower. As the confessor of the Duke of Uceda, Captain General of Galicia at the time, he persuaded the Duke to provide the necessary finance to carry out a project of improvements for



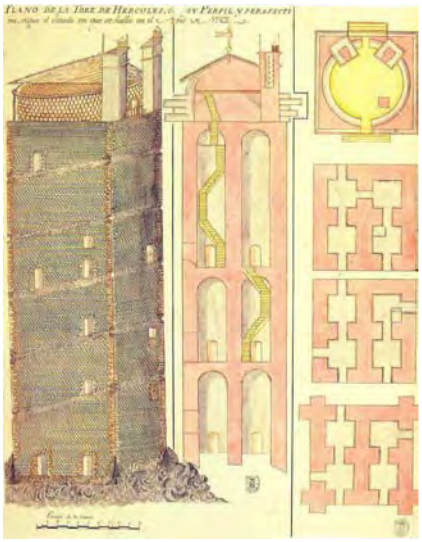
Lantern of Geneve (Italy)

Vista panorámica de A Coruña. Pier Maria Baldi, 1649

Lighthouse of Livorno

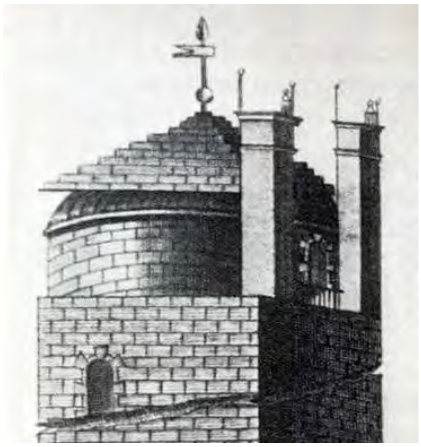
the Tower, which would come to include the construction of an interior staircase that, by passing through the Roman vaults, would open up a route to the rotunda. This stairway would be made of wood and would solve the problem of how to get to the top which had existed since the old Roman lighthouse had lost its ascending spiral ramp.

Once the interior staircase had been constructed, in November of 1685, the foreign consuls of Flanders, England and Holland, who lived in the city, went to the Captain General with the offer of taking advantage of the renewed access to the top by financing the construction of two small towers which would each hold an oil lantern thus enabling the Tower to recuperate its lost function as a lighthouse. The offer was subject to a commitment to keep the lamps burning all night for a period of ten years in exchange for the receipt of a new tax which all vessels arriving in the ports of the Kingdom would pay.



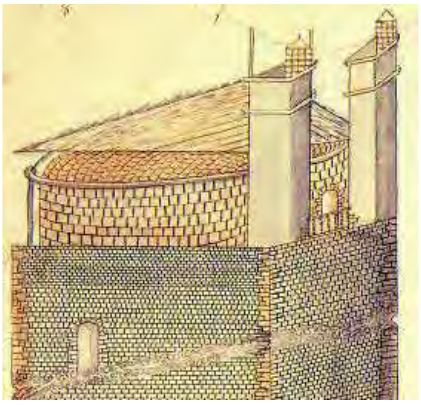
The Tower after the Works made by the Duke of Uceda in 1762. Biblioteca Nacional de Madrid

On 17th November 1685, the Duke passed a decree ordering the construction of the two small towers to hold the lamps. The project was entrusted to the master builder Amaro Antúnez, who belonged to a family of industrious stonemasons from Santiago de Compostela who moved to La Coruña in the middle of the 17th century in order to take part in the repair work of the city's defences, specifically the damaged watchtower in the proximity of what is now the Puerta Real[90]. Previously, this master builder had already worked on dismantling part of the Roman vaults in order to allow the stairway to the rotunda of the Tower to be built.



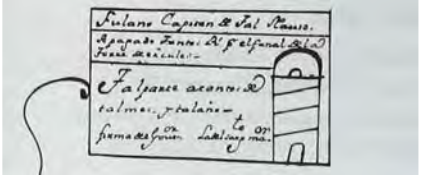
Detail of the upper part of the Tower of Hercules after the Works made in 1685, according to Flórez, España Sagrada, 1752

The consul of Flanders, Adrian de Roo, and Antonio Gómez Catoira, attorney of the city courts, were entrusted with the task of collecting the tax and with the obligation of attending to the lighthouse but problems must have soon occurred due to various irregularities because in 1687, only a couple of years later, Gómez Catoira was imprisoned in the Castle of San Antón, from where he proclaimed his innocence to the authorities by way of a letter while the new Captain General of Galicia ordered him to explain the reasons why he had not fulfilled his obligation to light the lamp[91].



Detail of the plan of the Tower of Hercules, probably by José Cornide, 1762

In the opinion of Bello Diéguez, the interest of the foreign consuls in the restoration of the functions of the lighthouse of the Tower of Hercules must have been related to the establishment of the Maritime Post Office, which linked the port of Coruña with the English port of Falmouth in 1687.



Tax receipt called "del fanal" (for the lantern)

[90] Goy Diz, A., *La arquitectura en Galicia en el paso del Renacimiento al Barroco 1600-1650: Santiago de Compostela y su área de influencia,* Santiago de Compostela, Servicio de Publicaciones de la USC, 1995.

[91] Bello Diéguez, J. M., "La Edad Moderna (Siglos XVI y XVII): El lento resurgir", in *Ciudad y Torre. Roma y la Ilustración en La Coruña,* Estación Marítima, 27th September – 10th November, 1991, A Coruña, Ayuntamiento de A Coruña, 1991, p. 182.

One of the main players in the restoration of the Tower was, without doubt, Father Negreiros, a very controversial figure who has not been studied sufficiently but who had a great influence on the Governor General of Galicia thanks to his role as the latter's confessor, a position which he took advantage of and, in the process, won the hatred of many of the representatives of the authorities of the Kingdom, especially those from the town of Ribadeo, who gave him the nickname "Fugitive Friar" and accused him of connivance with the foreign consuls.

In the municipal archive office of La Coruña there is a copy of a letter which Negreiros wrote to the town council in 1685[92], in which he pointed out the advisability of the new tax passing into the hands of the city, with the aim of the latter reaping the benefits of the tax because, if this were not so, the income would go to the consuls who would, therefore, become the administrators of the Tower. In his proposal, Negreiros advises the town council to construct a balcony facing south, looking out onto the city, similar to that which had been erected facing the sea, with the aim of asking for a key to the Tower thus becoming its de facto owner. He goes on to propose that someone be named responsible for collecting the tax, which would then be deposited in the municipal funds.

Engraving (1661) and view of the lighthouse of the Isle of Ré

The strategy outlined by the friar did not seem to interest the town council, which dismissed the subject by sending him a letter thanking him for volunteering his services.

The tax designed by the foreign consuls to subsidise the expenses supposed by the construction and maintenance of the lamps of the Tower of Hercules, which had to be paid by all ships which put into Galician ports, soon provoked strong, and in some cases violent, protests. This was the case with the representatives of the town of Ribadeo who complained in 1689 and 1701 to the Kingdom's authorities due to the exorbitant price of the tax. As a response, the council of La Coruña pointed out, in 1702, the great benefits that had been brought about due to the collection of this tax, compared to the low cost of the lighthouse's maintenance.

There is evidence that the Tower tax was still being charged in 1733 although it had come to be received by the Governor General of Galicia via the Sergeant Majors. In the General Archive Office of Simancas (Valladolid – Spain) some receipts of this tax, known as the "lantern tax", are preserved. Each ship's captain that arrived on the Galician coasts received a small card, on which the details of the payer and a schematic picture of the Tower appeared.

Engraving (16th century) and view of the lighthouse of La Rochelle (France)

Materials which came from the dome of the rotunda, which was in a terrible state, were reused in the construction of the two small towers which were to hold the lanterns. The rotunda was partly

[92] Archivo Municipal de A Coruña. Libro de actas de Acuerdos Municipales, 23, de agosto de 1685.

taken down and covered with a type of conical roof, which is shown in engravings of the time and which changed the traditional top of the lighthouse. Likewise, documentary evidence remains of the small balcony with a stonework base and a wooden balustrade which connected the two turrets and looked out on the ocean. However, this is not the case with the one on the southern facade that Negreiros proposed, which it is believed was never built.

On the plans of Carlos Boysin (1733) and B. Ricaud (1772) the upper part of the Tower after the reforms is shown in great detail and many details of the work done can be appreciated, such as the morphology of the turrets, their internal design, the characteristics of the balcony and the interior appearance of the old rotunda, where even the tapered stone, which may have been used as the base of the brazier, is shown. Both elevations are so meticulous in detail that Boysin even shows the cramp irons that were placed in the inside of the turrets to light the lanterns.

In addition to these two undoubtedly valuable graphic testimonies, there are other images of the Tower that show evidence of these reforms. Two of these constitute part of the fund of drawings held in the Archive Office of the Cathedral of Santiago and the third is the heraldic image which appears on the fountain of Neptune that the municipal architect Domínguez Romay designed in 1790.

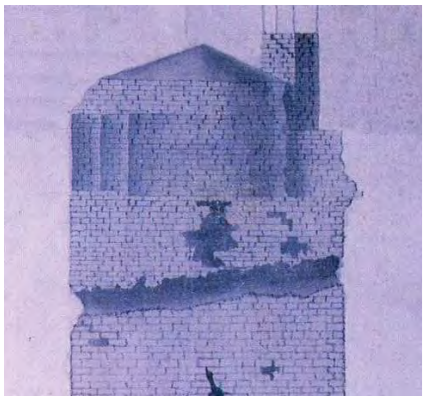
The two coloured drawings held in the archives in Compostela are extremely eloquent. The first of them is an imaginative image of the monument, especially as far as the representation of the rocky scenery surrounding the Roman structure is concerned. At the foot of the Tower, the stone bearing the inscription of Gaius Sevius Lupus and its text are shown. In addition, the remains of the wall corresponding to the beginning of the ramp, which were still preserved at the base of the southern facade, are shown. Moreover, at the top of the Tower the two small towers of the 1685 reforms, which still appear with the iron bars to hang the lamps, have been drawn with considerable liberty

The second drawing, representing a more realistic vision, shows the appearance of the Tower around 1769-1772[93]. It gives a good account of the state of the eastern facade of the central nucleus of the Tower, after having lost the external ramp and the enclosing walls, of which only the ruins of the start remain. In the elevation, the groove left by the disappearance of the afore-mentioned ramp, as well as the cracks and defects, can be seen. Of the two turrets erected in the times of the Duke of Uceda, only one is preserved as the other was destroyed by a lightning bolt in 1769.

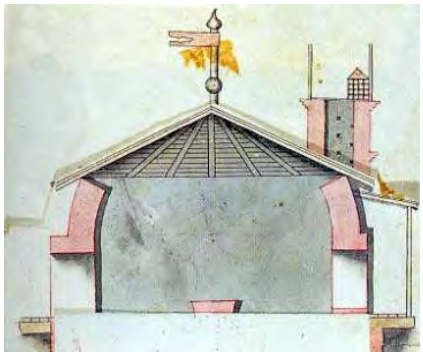
Detail of the plan of the Tower, according to B. Ricaud, 1772

[93] Chronological timeframe propsed by Sánchez García, J. A., *Los Faros de Galicia…* (2004), p. 308.

Detail of the irons bars used to hang the lanterns, after the work carried out by the Duke of Uceda



Detail of the upper part of the Tower between 1769 and 1772



Tower of Hercules. Section which shows the base of the brazier. Carlos Boysin, 1733. Servicio Histórico Militar. Madrid

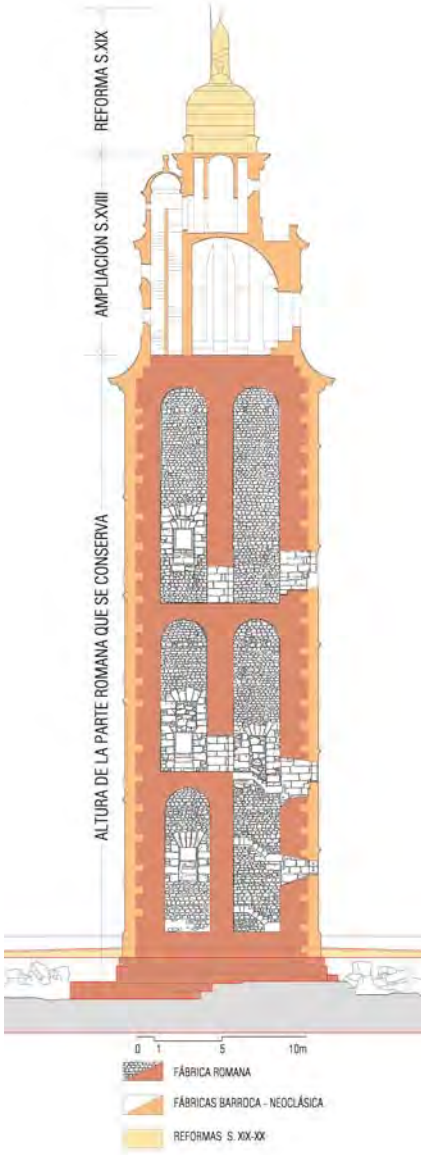
Engravings of the Tower. 18th century

The third image can be found on the fountain of Neptune that the town council of La Coruña commissioned in 1790 from the municipal architect Fernando Domínguez Romay and the sculptor Antón Pernas as part of the project to improve the municipal hydraulic network. This fountain presides over the square of Santa Catalina, which is to be found on the edge of the street of San Andrés. The image of the Tower on this monument is fully justified as it was a project financed by the council and had to bear its coat of arms. This coat of arms was carved on the municipal shield that Neptune bears; in it the Tower appears with the ascending spiral groove and the two characteristic turrets of the reforms of 1685.

Tower of Hercules. Neptune's Fountain. F. Domínguez Romay y A. Pernas, 1790

The restoration of 1790, carried out by Eustaquio Giannini, saw great alterations to the stairway constructed by Amaro Antúnez in 1685 and practically erased all trace of what had been done at the top of the Tower although even today the impression of the base of what must have been one of the turrets can be seen on the floor of the Sala Giannini.

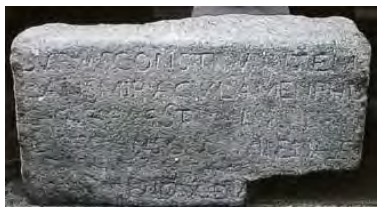
In the attached elevation, made by the architects Doce Porto and Trigo Cousillas, a hypothetical reconstruction has been made of the body and top and an approximate of its height based on data set down in the *Cuaderno copiador de las relaciones mensuales de la obra ejecutada en la reparación de la Torre de Hércules desde su principio hasta su conclusión* (1788-1790)[94], which is in effect a diary in which, month by month, a meticulous account of the work carried out is recorded. In this document it is stated that, in the month of September 1789, the top of the Tower was taken down, "its circular base of eight yards in diameter, five yards in height, as well as two square pillars of six and a half feet and two yards high, above the five yards, where the lanterns were placed..."[95]. Thanks to this reference, the approximate dimensions of the body of the top in 1685 can be established; a rotunda of some 6.64 metres in diameter and 4.15 metres in height, topped with the turrets of 1.66 metres.



Section of the Tower. Doce Porto y Trigo Cousillas, 2008

To commemorate the restoration work of 1685 a stone was engraved with an inscription with the following, incompletely preserved, text, the last line of which would probably have been a reference to the promoter of the work, the Duke of Uceda:

LUPUS CONSTRUXIT EMU
LANS MIRACULA MENPHIS
GRADIVUS STRAVIT YLAM
LUSTRANS CACUMINE NAVES
. . . . . .XDDVXV. . . . . .



Which can be translated as: "Lupus built it emulating the wonders of Memphis, he levelled it out by means of a staircase and it illuminated the ships from its summit".

[94] Archivo del Real Consulado de A Coruña.

[95] Romero Masiá, A, "A restauración da torre de Hércules e o Real Consulado da Coruña", in *Fuentes para el estudio de la Torre de Hércules. Conmemoración del Bicentenario de la reedificación de la Torre de Hércules,* A Coruña, Instituto "José Cornide" de Estudios Coruñeses, 1991, p. 163.

In the same way that Gaius Sevius Lupus had left evidence of his work by way of an inscription, the Duke of Uceda also wanted to leave his mark by means of an epigraphic testimony that, once again, related the Tower of Hercules to the emblematic and legendary example of the Lighthouse of Alexandria, built in the Nile Delta, in the proximity of the city of Memphis, the former being a symbol of dominion over the waters of the Atlantic and, therefore, worthy of comparison to the latter.

This stone was probably placed inside the Tower in a prominent position, as irrefutable evidence of the improvements that had been carried out. However, for reasons that are not known, the stone was taken away and, according to Tettamancy[96], was passed around several houses in the Old City until Miguel de la Bárcena recovered it and handed it over to the intellectual José Cornide, a great student of the monument's history, who kept it in the hallway of his home. It was still there in 1850 but, at an unknown date, it disappeared and it was lost track of with nobody knowing its whereabouts for many years.

Cornide's Palace. A Coruña

At the beginning of the 20th century, as a result of work being done to the sewer system outside Cornide's home, Ángel del Castillo found the engraved stone upon removing some of the paving stones in the Calle de Damas in front of the Colegiata de Santa María. From that moment, the piece became part of the collection in the Museo Arqueológico Provincial, where it is still held today.

D.2. Restoration Attempts in the 18th Century.

The modernisation of the port of La Coruña and the growing maritime significance that the neighbouring port of Ferrol was acquiring brought about insistent calls, from 1730 onwards, for the Tower of Hercules to be reformed and improved with the aim of increasing its properties as a coastal lighthouse responsible for illuminating the way for all vessels heading to both ports.

In 1730, the structure was not in very good condition. The interior wooden stairway was weak and unsafe, as was the small balcony located at the top for the watchmen, which was also made of wood; the lanterns were small and gave insufficient light and, if all this were not enough, one of the lanterns erected in the times of the Duke of Uceda stopped working around 1733. Therefore, at the end of the first third of the 18th century, it was evident that the Tower was in need of improvement.

Given that all foreign vessels continued to pay the lantern tax, it is understandable that, considering such a situation, improvements were called for to make the lighthouse illuminate as it had in the past or, even better, to give it a more intense system of illumination to increase its power as a great coastal beacon. The protests did not take long in coming and were led by the consuls of France and England, who complained that the ships of their respective countries were those that had to pay the tax most frequently and did not receive a good service in return.

[96] Tettamancy Gastón, F., *La Torre de Hércules. Impresiones acerca de este antiquísimo faro bajo su aspecto histórico y arqueológico,* A Coruña, Imp. Roel, 1920, pp. 139-141.

D. 1. 1. The Reports of the Engineers La Ferriere and Boysin.

At the same time, Minister Patiño and the Quartermaster General of the Navy of the Department of Ferrol, Bernardino Freire, promoted a plan of reforms that aimed to restore and improve the lighthouse. In 1733, a full report was commissioned from the engineer Juan de La Ferriere which would include an estimated budget for the work. This document, dated 19th May 1734, is of great interest as the author comments on the architectural virtues of the ancient lighthouse, which he regards as "*well built*" and "*memorable*" for its quality and antiquity, from the time "*of Romans*", which as Vigo Trasancos[97] notes, shows a deep preoccupation for the antique value of the monument which, at the time, was the subject of many stories and legends.

La Ferriere's proposal for repairs consisted of equipping the Tower with a new, larger, brighter and more modern lantern and strengthening the old walls as they had the wrong "mixture" and some of their stones were loose and about to fall. It would also be necessary to rebuild the lower staircases, either in wood like the old ones "*or in masonry*" although he was of the opinion that the latter would be more appropriate, given the architectural quality of the building and its status as an ancient monument.

As well as the report of de La Ferriere, the Quartermaster General of Ferrol wanted to have a second opinion and ordered the engineer and Naval Lieutenant Carlos Boysin, posted to the Arsenal of A Graña-Ferrol, to transfer to La Coruña and write another report to be accompanied by the corresponding plans and elevations. Fortunately, these plans were found by Bello Diéguez in the archives of the Servicio Histórico Militar (S.H.M.) in Madrid[98] and today both the criteria of the restoration work and the afore-mentioned plans can be scrutinised.

In the opinion of Boysin, it was necessary to repair the interior staircase and, above all, to completely transform the upper part of the lighthouse to the point of disfiguring what remained of the old rotunda and eliminating the turrets, wooden balconies and the roof hiding part of the dome, which were added by the Duke of Uceda, as well as the remains of the stone covering which was preserved from Roman times. In its place, he proposed the installation of a new vertical structure in the centre of the rotunda with a hexagonal ground plan, presumably of stonework and an interior spiral staircase. This structure would be crowned by a lantern which would partly lie on the existing walls of the old Roman rotunda. In order to clearly differentiate the proposed work, he used pink ink on the plans to identify the already existing structure and yellow ink for the proposed work.

Plans and sections.
C. Boysin, 1733. Servicio Histórico Militar

[97] We would like to thank the author for having provided us with the original text before its publication so that its conclusions could be included in this dossier. Vigo Trasancos, A., *A Coruña y el Siglo de las Luces. La construcción de una* Ciudad de Comercio (1700-1808), Santiago de Compostela, Universidade de Santiago de Compostela. Universidade da Coruña, 2007, pp. 54-56.

[98] Archivo del Servicio Histórico Militar (S.H.M.) Madrid: Sección A; grupo XVI; subgrupo I. España. Provincia de La Coruña .nº 3346. B-11-64. Micro. 019/088/089. "*Planos de la Torre de Hércules"* (7 hojas)

Both the report of de La Ferriere and that of Boysin foresaw an estimated budget of around 10,000 to 12,000 *reales*, a sum which was perhaps excessive for the coffers of the State, which was not able to finance the reforms at that time.

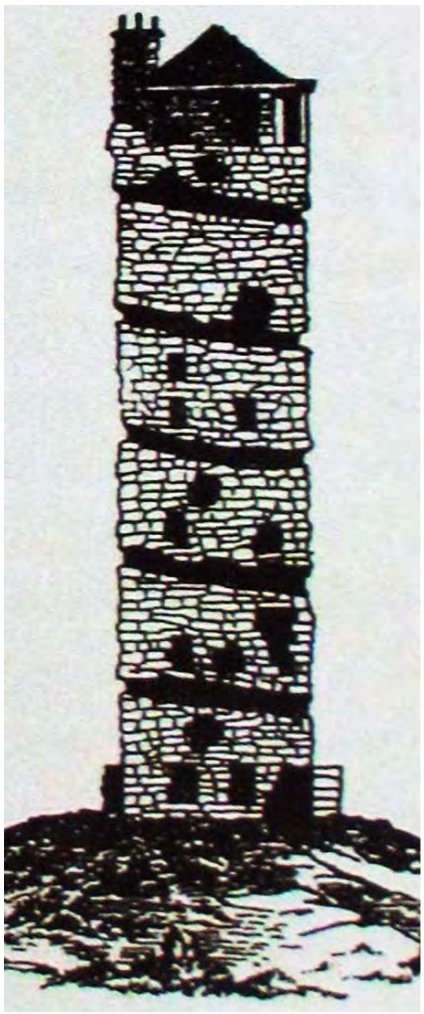
Detail of the upper part of the Tower after having lost one of the lanterns,1769-1772. Archivo de la Catedral de Santiago de Compostela

D. 1. 2. The Lightning Strike of 1769 and the New Attempts at Restoration.

On 5th May 1769, during a violent storm, a lightning bolt struck the Tower and set fire to and destroyed the only remaining lantern of the two that were installed in 1685.

The Naval Commissioner Cristóbal Martín Vegue wrote to the Quartermaster General of the Navy Hordeñana to request the rapid repair of the lantern, enclosing the corresponding budget. The request reached the Naval Minister Arriaga, who invited the Captain General Casatramañes to ask the Ministry of War for the money corresponding to the collection of the "*lantern tax*". Casatramañes did so and, after requesting all available information from the town council, repaired the lantern in 1772.

As we saw in the previous section, a colour drawing of the eastern facade of the Tower is kept in the archives of the Cathedral of Santiago de Compostela which shows the degree of deterioration suffered by the monument following the lightning strike of 1769, which mutilated one of the turrets. This graphic document is of extraordinary value due to the meticulous description given of the monument by way of the image[99]. It is probable that E. Allard took this drawing as a point of reference when he published his study of lighthouses in 1883[100].


Engraving o fthe Tower by Allard, 18th century

E. The Naval Ministry and the Restoration of the Tower of Hercules.

Although the intellectual Cornide Saavedra defended the view that the restoration of the Tower was the fruit of an initiative on the part of the Maritime Consulate, recent research, as yet unpublished, carried out by Professor Vigo Trasancos indicates the opposite. It was, in his opinion, the Naval Ministry that, in 1785, took the decision to restore the lighthouse as part of the global improvement plan for the port of La Coruña, which included the cleaning of the bottom of the harbour, the construction of a modern quay close to the customs house and the building of a quayside between the Castle of San Antón and the mainland. What is more, it is even probable that in that year a plan was made relating to the reforms because the documents that have been

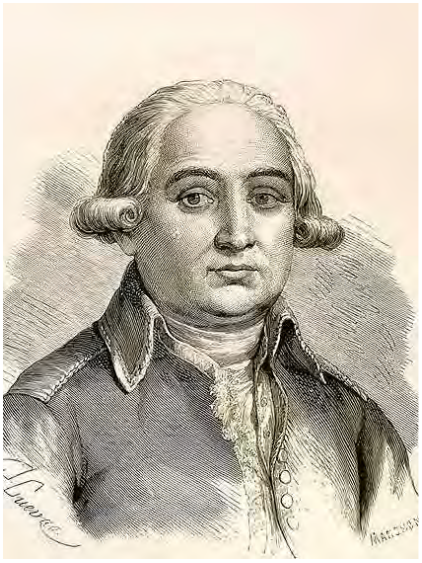
[99] Archivo Catedral de Santiago, Dibujos y planos nº 76. Reproduced in *Ciudad y Torre. Roma y la Ilustración en La Coruña,* Estación Marítima, 27th September – 10th November, 1991, A Coruña, Ayuntamiento de A Coruña, 1991, láminas II-62.

[100] Allard, E., *Phares et balises,* (1883), p. 20.

preserved mention that "the repair of the Tower and the lantern" were represented on plan nº 4[101].

Although the predominant role of the Naval Ministry has to be recognised, all the institutions and personalities of Coruña took part in the project. The Consulate suggested to the King, who willingly accepted, that the work should be carried out based on its funds. The Captain General of Galicia, Pedro Martín Cermeño (May 1787) applauded the initiative and offered his services to the project, as did the chief engineer of Galicia, Manuel de Navacerrada (June 1787), the engineer of the War Office Juan Caballero (July 1787), the Quartermaster of the Navy Miguel Bañuelos (July 1787) and, finally, the Ministers of War and the Navy, Jerónimo Caballero and Antonio Valdés respectively.

The support given to the project from the start by the Captain General of Galicia Pedro Martín Cermeño, the greatest authority in the kingdom, seems especially interesting. Being an engineer by profession, he openly backed the reforms to the Tower of Hercules as he considered that they were a way of contributing towards the improvement and development of navigation, trade and the city itself.



José Cornide Saavedra

Aware of the relevance that the project could acquire, Martín Cermeño commissioned, in 1787, the engineer Manuel de Navacerrada to write a detailed report, which has recently been found in the Archivo Histórico Nacional by López Vallo[102]. It includes the first proposal for reforms to the Tower of Hercules, which suggested maintaining the structure of the Roman lighthouse and adapting it to modern maritime necessities. It seems that both Cornide and the Consulate, who, along with Martín Cermeño himself, argued for this type of solution, took part in the planning of the project. This option allowed for costs to be kept low and, above all, would have consolidated a structure which, if action was not taken, ran the risk of disappearing.

Engravign of the Port of A Coruña.
18th century

These arguments were maintained with sibylline audacity by Martín Cermeño, who informed, and convinced, the Ministry of War of the great economic benefits of his proposal and encouraged the Ministry to take immediate action to avoid the total ruin of the monument. Martín Cermeño's reasons obviously went beyond the economic assessment which he expounded to his superiors.

[101] On 4th January 1788, Antonio Valdés, in the name of the Naval Ministry, gave an account to Jerónimo Caballero, Minister of War, that "*no habiendo podido verificarse por falta de caudales varias obras urgentes en el puerto de La Coruña, entre ellas la de la composición de la Torre de Hércules y de su farol para el alumbrado, propuso al Rey (el Consulado) … costear la composición de la torre y las obras proyectadas por la Marina en el año 1785, según los documentos y planos adjuntos … Bajo este concepto aprueba S. M. la obra del muelle frente a la Aduana que señala el plano número 2º y el reparo de la Torre con el farol que demuestra el número 4º".* Vigo Trasancos, A., *A Coruña y el Siglo de las Luces. La construcción de una Ciudad de Comercio (1700-1808),* Santiago de Compostela, Universidade de Santiago de Compostela, Universidade da Coruña, 2007, 238-239.

[102] Archivo Histórico Nacional de Madrid, Estado, Legajo 2934, nº 20. Exp. *"Torre de Hércules". Recogido por Sánchez García, J. A.,* Faros de Galicia, (2004), p. 542.

Cornide's arguments were, in his opinion, extremely solid and he, therefore, defended the preservation of the Roman structure due to the historical value that it contained.

The Ministry ordered Navacerrada to inform them of the situation of the lighthouse. He did so and his recommendations regarding the conservation of the Roman nucleus in order to "rebuild *the ruined exterior*" proved to be of great interest. Given these circumstances, we can conclude that by 1787, the criteria governing the work on the old tower, which the engineer Eustaquio Giannini would later follow, had been fixed. They were criteria that were shared by the three people that had been most concerned that the Roman lighthouse should continue to stand: Cornide, Martín Cermeño and Navacerrada.

On 4th January 1788, King Charles III issued a Royal Order authorising the work to the Tower of Hercules, which was to be financed by the Royal Consulate of La Coruña, which requested the Captain General of Ferrol to designate the "facultative engineer that has been commissioned for the work" so that they could discuss the projects with him[103].

Portrait of King Carlos III.
Rafael Mengs, 1760-1761

E.1. The Engineer Eustaquio Giannini and the Reform Project.

The person chosen by the Captain General of Ferrol to direct the reforms to the Tower of Hercules was the common engineer and ship's lieutenant Eustaquio Giannini, who had perhaps already been committed to the project when he worked on the cleaning project in the port of La Coruña in 1785. Records show that on 7th March 1788 he was in the city again and from that date until the month of July he was immersed in drawing up the plans for the Tower. Throughout this period he most probably counted on the invaluable help and advice of the Captain General Martín Cermeño and the intellectual José Cornide, who was the person that had given most attention to researching the history and characteristics of the Roman tower and was, in addition, one of the most knowledgeable people regarding antiquities of Galicia and Spain, as he would demonstrate a few years later with the publication of his work *Investigaciones sobre la fundación y fábrica de la Torre llamada de Hércules (1792).* With this book, which was approved by the Real Academia de la Historia, José Cornide became the first Spanish writer to have previously studied and then collaborated in the restoration of an ancient monument. To some extent, his work was a technical report, which Giannini consulted before starting his work. It could be considered that this was one of the first

[103] Library of the Real Consulado de A Coruña. Libro de Acuerdos, nº 1, f. 57. Consular Records dated 28th January 1788. Romero Maciá, A., "A restauración da Torre de Hércules e o Real Consulado da Coruña", in *Fuentes para el estudio de la Torre de Hércules. Conmemoración del Bicentenario de la reedificación de la torre de Hércules,* A Coruña, Instituto "José Cornide" de Estudios Coruñeses, A Coruña, 1991, p. 103-150*;* Vigo Transancos, A., *A Coruña y el Siglo de las Luces. La construcción de una Ciudad de Comercio (1700-1808),* Santiago de Compostela, Universidade de Santiago de Compostela, Universidade da Coruña, 2007, p. 239.

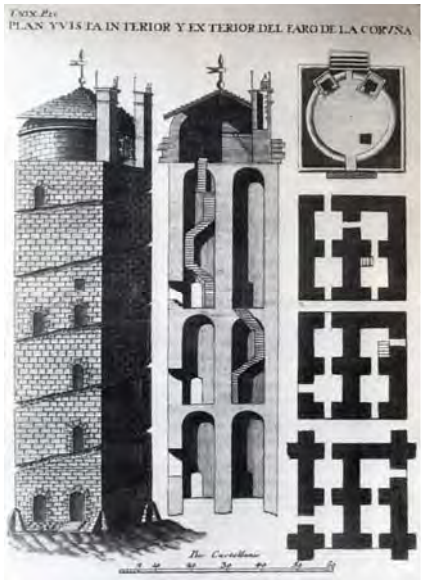
interdisciplinary teams ever formed, with the aim of restoring the Roman lighthouse.

According to documents that have been preserved, the project, with its plans and conditions were concluded in the month of June although it still had to be approved by the governing body of the Maritime Department[104] on the 15th of that month. From what can be seen in the plans, which we only know of through the documents published by Cornide, it seems clear that Giannini stood by the line of thinking defended by Martín Cermeño and respected the remains both for economic reasons and out of respect for one of the most venerable monuments of Ancient Hispania.

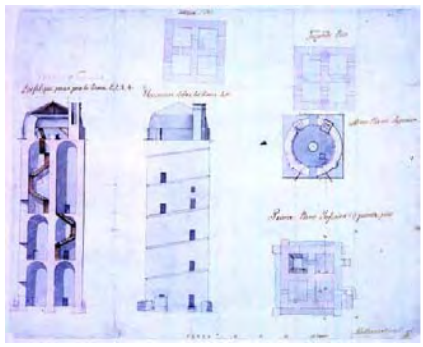
So, in the year 1788, all which remained standing of the Roman construction was the solid quadrangular structure of the interior which held the old vaulted rooms and the domed rotunda at its top. What was, perhaps, most striking regarding the Tower's appearance were the two doors that gave access to the interior and which were located quite a distance from ground level, or the asymmetrical windows with their characteristic lintelled arches that looked out from all four sides or maybe even the differentiation of the material between the opus vittatum of the quadrangular body and the opus quadratum which constituted the raised rotunda that we know of thanks to several trustworthy drawings, such as the one attributed to Cornide which was published in Father Flórez's *España Sagrada* (1762)[105] and that by the engineer Baltasar Ricaud (1772)[106].

The project consisted of maintaining and consolidating the main prismatic body, "removing and cleaning all those parts of the old construction which were threatened with ruin or whose mortar was spoilt and offered little hope that it could bind with the new material"[107], to which a shell, or stone casing of good masonry of varying thickness, though never less than 60cm, was added and connected to the nucleus by means of headers and strengthened by a system of metal moorings, as Hutter pointed out[108].

It can be stated, without a doubt, that Giannini's work was one of the first scientific restorations of an ancient monument ever carried out in Spain, which had a criterion of almost sacred respect to the pre-existing classical work, valuing it as a unique work of ancient engineering that, by means of its modernisation and under the protection of its neo-classical covering, would reappear in all its splendour.



Plan attributed to Cornide and published in Father Flórez's España Sagrada.


Tower of Hercules by B. Ricard, 1772. Servicio Histórico Militar. Madrid

Hypothetical reconstruction of the Tower which shows the ascending spiral ramp by José Cornide Saavedra, 1790

[104] Sánchez García, J. A., *Faros de Galicia…* (2004), p. 311.

[105] Biblioteca Nacional de Madrid.

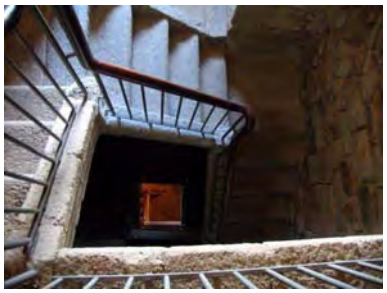
[106] Baltasar Ricaud, 1772. Servicio Histórico Militar. Madrid.

[107] Cornide Saavedra, J., *Investigaciones sobre la fundación y fábrica de la Torre llamada de Hércules, situada a la entrada del puerto de La Coruña,* Madrid, Oficina de Don Benito Cano, 1792. pp. 35-36.

[108] Hutter, S: *Der römische Leuchtturm von La Coruña,* Main and Rhein, Ph. Von Zabern ed., 1973 (*El faro romano de La Coruña,* A Coruña, Ayuntamiento-Ed. O Castro, 1973), p. 21

It was a conservative, though at the same time innovative, intervention that did not renounce the neo-classical style but interpreted it with exquisite sensitivity, as is shown by the almost archaeological criterion of differentiating the new and the old by inserting the black stone, the preservation of the memory of the ramp on the outer facades and the construction of the new rotunda with the same measurements as the pre-existing one, with the objective of not varying the ancient proportions.

In order to resolve the problem of the external appearance of the monument, a design which was strictly unadorned, though rigorously classical in its general shape, was adopted with a base and four plain mouldings on the sides. As far as the spacing out and format of its openings are concerned, for the pairs of windows with dust covers that are staggered on the four sides, some of the primitive openings of the interior nucleus were reused but were made uniform and totally symmetrical although, in order to do this, the real windows were alternated with the blind ones, as an attempt was made not to open up new windows but to make the old ones regular. In addition, within this archaeological reading of the monument, a decision was made to maintain the memory of the primitive ramp in the spiral impression that ran around the whole exterior of the new appearance of the lighthouse because it was, according to Cornide[109], a witness to what had existed in the past and had been lost, acquiring a truly idiogrammatic dimension repeated in drawings, engravings and in Baroque carvings. The octagonal body of the rotunda was designed along the same lines, coinciding in form and dimension with that which had existed before.

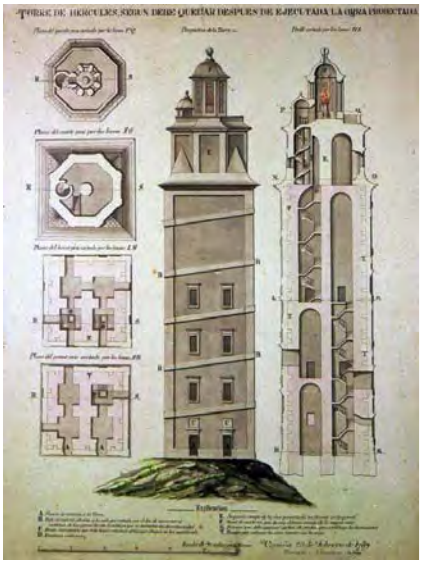


Stone stairs made during the Giannini's Works in 1790

Black stones showing the limit of Giannini's work

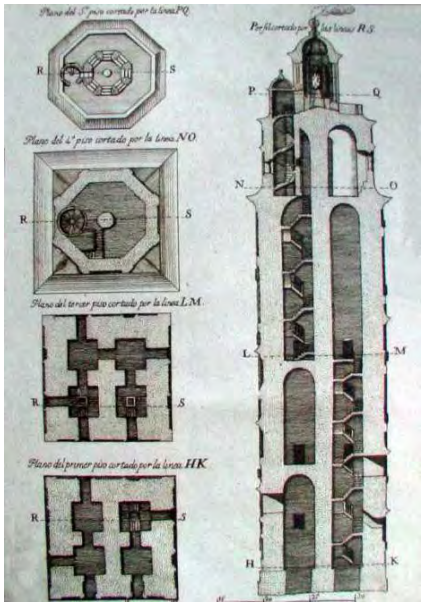
In the interior Giannini respected the configuration of the four superimposed vaulted chambers on three levels of the Roman construction. The necessity to facilitate the passage of people and fuel to the lantern demanded that these vaults be perforated yet again to make way for a new, more comfortable, stairway made of stone, thus improving the provisional access route made by Amaro Antúnez in 1685. The course of this stairway can be followed in the plan reproduced by Cornide, with its woodwork banister.

The domed rotunda was taken down and a new architectural composition was thought up which was designed to provide the



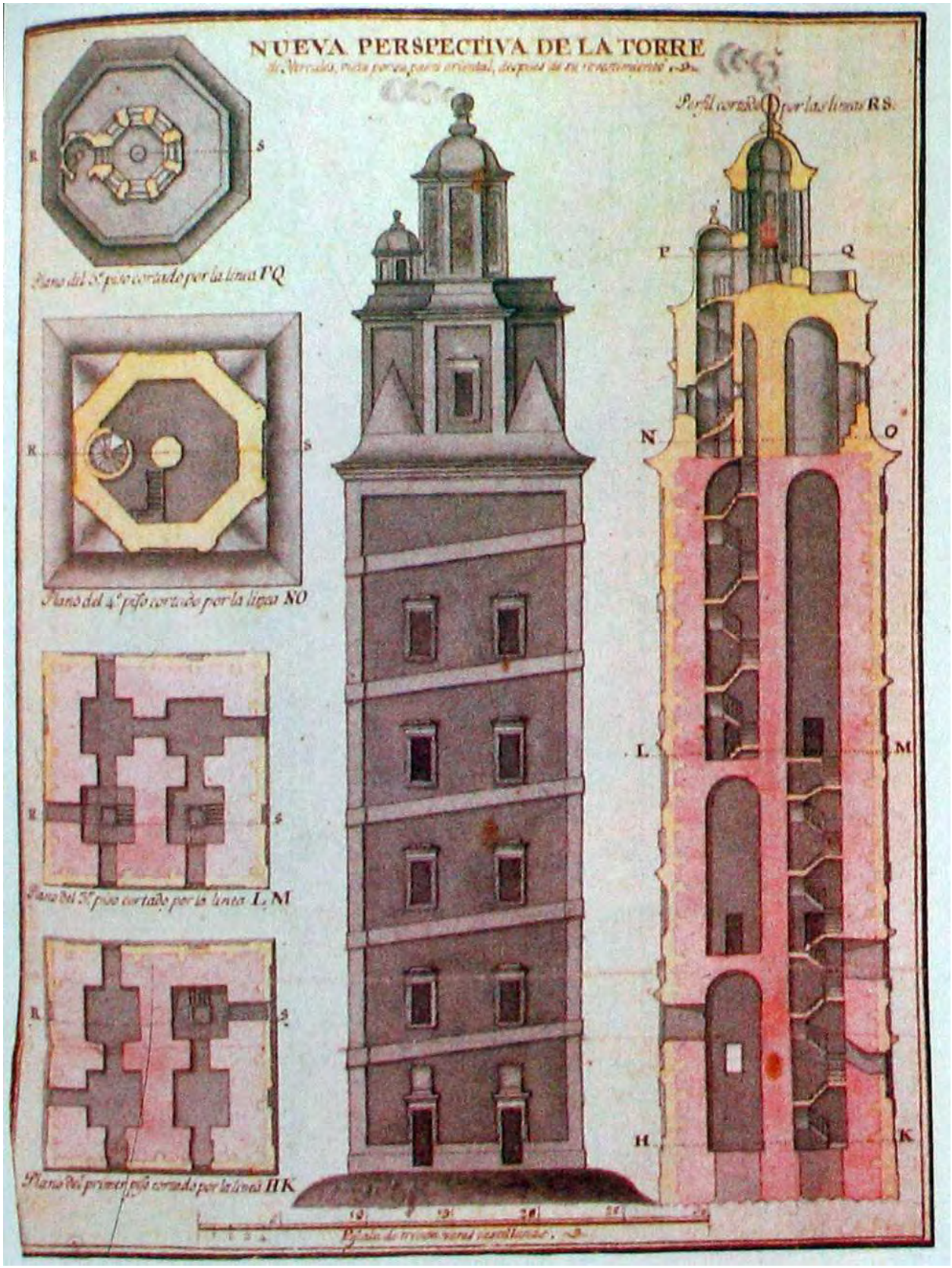
Plan of the Tower by Cornide, 1789

Plans probably by de E. Giannini published by J. Cornide, 1790



Plans probably by de E. Giannini published by J. Cornide, 1790

[109] Cornide Saavedra, J., *Investigaciones sobre la fundación y fábrica de la Torre llamada de Hércules, situada a la entrada del puerto de La Coruña,* Madrid, Oficina de Don Benito Cano, 1792. p. 36.



Plans, elevation and section in color of the Tower of Hercules published in a manuscript by José Cornide Saavedra, 1792, Real Academia de la Historia. Madrid

lantern with its own storage area. It was decided that two octagonal bodies would be superimposed which were joined to the prismatic structure by way of an incurved roof in the style of Hispanic spires derived from Herrerian classicism. In this way, it was not only possible to maintain the prismatic and quadrangular essence of the Roman lighthouse but also to reform its upper section to adapt it to the new illumination demands of the navigation of the day with an obviously Hispanic appearance inspired by El Escorial[110].

Spire of the Town Council of Madrid

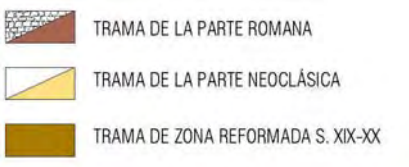
Spirestowers of San Lorenzo del Escorial's Monastery

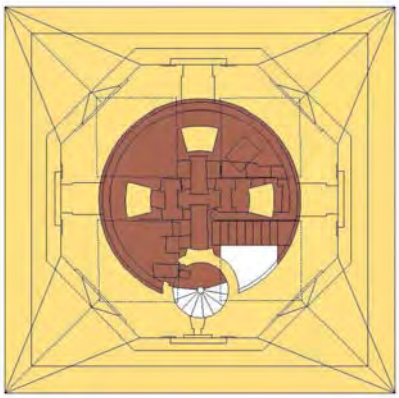
When, in 1607, the lighthouse of Puerto Pi, in the port of Mallorca was altered in height in order to adapt it to new necessities in maritime signalling, an octagonal body was superimposed on the prismatic tower. It is, therefore, probable that Giannini sought inspiration from the second oldest lighthouse in the Peninsula.

In addition, in the hypothetical reconstructions of the Lighthouse of Alexandria mention is made of the superposition of an octagonal body upon the prismatic base, which in turn served as the base for the cylindrical top.

In the first octagonal body of the Tower of Hercules is found the great circular room topped by a dome upon radial pillars that give way to an annular corridor around the central nucleus. It was in this part of the building that Eustaquio Giannini wanted to leave documentary evidence of his work, just as Gaius Sevius Lupus and the Duke of Uceda had, by way of an inscription, which reads: *"DIRIXIO ESTA OBRA EL THENIENTE DE NAVIO ING^{O} ORDINARIO DE MARINA D. EUSTAQUIO GIANNINI"* (This work was directed by the ship's lieutenant and common naval engineer Eustaquio Giannini).

It is in this room that the shaft or spiral begins which leads onto the balcony or terrace, via a small construction in the form of a sentry





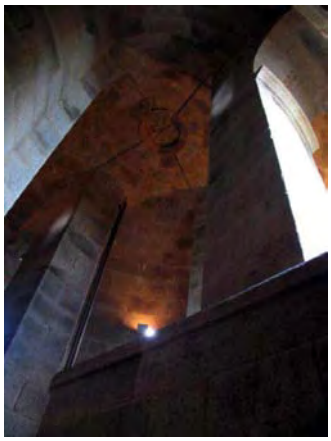
Roman pavement in the Sala Giannini

Lighthouse of Port Pi (Majorca)
Mediaeval lighthouse extended in 1609

Hypothetical reconstruction of the Lighthouse of Alexandria (Egypt)

[110] Vigo Transancos, A., *A Coruña y el Siglo de las Luces. La construcción de una Ciudad de Comercio (1700-1808),* Santiago de Compostela, Universidade de Santiago de Compostela, Universidade da Coruña, 2007, p. 245.

box that, according to Rodríguez-Villasante[111], recalls solutions of military engineering of the 18th century that are repeated in the Arsenal and in the castles of the Ferrol estuary. The second octagonal body was conceived by Giannini as an open structure with broad arcades and covered by a small dome complete with a chimney for the smoke to escape.



Dome over the octagonal section that replaces the Roman rotunda

Stairs of access to the old lantern of the Tower

Different tops of the Tower: Project by E. Giannini, 1790; works between 1804 and 1806, and present view

The restoration work began in the summer of 1788 when the provision of the stone was adjudicated to Juan de Elexalde, a well-known master builder in Galicia who had worked on all the main construction works in the region, such as the Arsenal in Ferrol, the *Camino Real* to Madrid, the Arsenal of the Maritime Postal Office in La Coruña and the Casa Paredes. With the plans approved by the King in the month of September, the laying of foundations began once the rock on which the Tower rested had been exposed.

In October 1788, the Captain General of the Navy decided that coal from Avilés should be used to fuel the illumination system of the Tower instead of oil lamps. This turnaround meant that the structure of the upper body of the Tower had to be modified. Even so, the work was basically completed at the end of 1790. The cost was 517,095 *reales* and 2 maravedís.

In September 1792, Eustaquio Giannini told the Consulate that he wished to return to Ferrol. The Junta settled his salary but three aspects of the initial project had still not been carried out; the construction of the road to connect the Tower with San Amaro, which would allow the transport of materials and people; the erection of a structure to house the Roman inscription that had

[111] Rodríguez Villasante Prieto, J. A., *Historia y tipología arquitectónica de las Defesas de Galicia. Funcionalidad, forma y ejecución del diseño clasicista,* Sada-A Coruña, Eds. O Castro, 1984, p. 135.

Commemorative inscription of the restoration made by Eustaquio Giannini, 1790

Top of the spiral staircase with form of booth. Access to the old lantern

Giannini's works. Octagonal body, lantern and lighthouse, 1790-1806

Engraving of the Port, Customs and Casa Paredes, where J. Elexalde works

been found at the foot of the Tower and the construction of the square with parapets around it which had been proposed in April 1790, which, in the opinion of Vigo Trasancos, was conceived with the clear objective of emphasising and strengthening the monument whilst keeping alive the mythical resonance of the primitive rocky outcrop on which the Tower of Hercules had been erected.

For the Tower to be able to function, a lighthouse keeper and two watches, to be recruited from among the invalid sailors, would be necessary. For the illumination, coal would be used which would be burned in a cast iron brazier forged in the ovens of La Cavada, stoked up by the use of bellows and an iron shovel. According to the Consulate's accounts, the lamp would not be lit on very windy nights or in the summer months with good weather, unless there was news of maritime traffic.

The Consulate's lack of funds meant that, from 1790 onwards, the lantern tax was reintroduced and was to be paid by all national and foreign boats which put into port in any of the Artabrian Gulf's ports: La Coruña, Betanzos, Ares and Ferrol.

F. The Modernisation of the Lighthouse in the 19th Century.

The illumination system used following the restoration of the lighthouse continued to be a cause for severe criticism. Therefore, the Consulate decided to improve it and sent José de Mendoza, a ship's captain to London to enquire about the possibility of constructing a lantern with rotating parabolic reflectors. At the end of 1799, the new system arrived in the city. Its high cost forced the Consulate to carry out a public collection to meet part of the expenses.

Access to the Tower's lighthouse

In order to put the new system of maritime illumination into place, it was necessary to carry out certain changes to the top of the Tower. De Hermosilla, the chief engineer of the Kingdom, requested the services of Eustaquio Giannini to carry out the necessary reforms. Basically, these reforms consisted of dismounting the dome and placing on its base a lantern of 3.2 metres in diameter. The great windows of the lantern, now with no purpose, were bricked up and an interior staircase was built to gain access to the lantern and an exterior spiral staircase was built which led to the upper balcony and which remains hidden by a cylinder with a tapered point, which gave the Tower its characteristic profile and which served as a support for the lightning conductor.

Yet again, an effort was made when designing this shaft to integrate it into the lighthouse as a whole from an aesthetic point of view. For this reason, stone of the same quality and colour was sought and, most importantly, it was decorated on the outside with a spiral band which clearly evokes that which encircles the main body of the lighthouse itself[112].

[112] Vigo Trasancos points out the possibility that the top of the staircase was designed by José Giannini and not by Eustaquio. Vid. Vigo Transancos, A., *A Coruña y el Siglo de las Luces. La construcción de una Ciudad de Comercio (1700-1808),* Santiago de Compostela, Universidade de Santiago de Compostela, Universidade da Coruña, 2007.

The naming of Eustaquio Giannini as First Assistant to the Command of the Maritime Post Office in La Coruña on 21st November 1800 meant that the responsibility for the work would fall to his brother and fellow engineer José Giannini, who set about carrying out the reforms in accordance with the plans elaborated by Eustaquio.

The new lantern was installed between 1804 and 1806, raising the height of the Tower to 101 metres above sea level. All these changes were reflected in an interesting, but anonymous, plan of 1804, which is conserved in the archive office of the Cathedral of Santiago[113] and which could well have been the work of the Giannini brothers due to the detail and precision with which the renovations, such as the lantern, the lightning conductor, the stand holding the inscription of Gaius Sevius Lupus and the platform with the iron railing, are described.

In 1806, José Giannini designed and constructed a building, which no longer stands today, for the guards and the watchmen. It was situated to the left of the base of the Tower, attached to the platform which, at that time, must have already been planned and consisted of two floors. The ground floor contained a storeroom and kitchen whilst the upper floor had capacity for forty soldiers, which would be the number needed in times of war.

That same year, two inscribed bronze plaques were placed over the main entrances to the Tower. The Real Academia de la Historia commissioned the texts from Cornide in the year 1790. One is an inscription in Latin whilst the other is in Spanish and commemorates the restoration of the Tower of Hercules:

CAROLI III P. AUG. PP.
PROVIDENTIA
COLLEGIUM MERCATORUM
GALLAECIAE
NAVEGANTIUM INCOLUMITATI
REPARATIONEM
VETUSTUSSIMAE AD BRIGANTIUM PHARI
D. S.
INCHOAVIT
CAROLI IIII OPT. MAX
ANNO II
ABSOLVIT

Conical ending of the spiral stairs. José Giannini, 1806

Elevation of the Tower with the reforms made between 1804-1806.

[113] Archivo Catedral de Santiago de Compostela, Dibujos y planos nº 78. Reproduced in *Ciudad y Torre. Roma y la Ilustración en La Coruña,* Estación Marítima, 27th September – 10th November, 1991, A Coruña, Ayuntamiento de A Coruña, 1991, pp. 183-196.

REINANDO CARLOS IV
EL CONSULADO MARÍTIMO
DE GALICIA
PARA SEGURIDAD DE LOS NAVEGANTES
CONCLUYÓ A SUS EXPENSAS
EN EL AÑO DE 1790
LA REPARACIÓN
DEL MUY ANTIGUO FARO
DE LA CORUÑA
COMENZADA EN EL REINADO Y
DE ORDEN DE CARLOS III

During the reign of Charles IV
The Maritime Consulate of Galicia
For the safety of Sailors
Carried out at its own expense
In the year 1790
Repairs
To the ancient lighthouse
Of La Coruña
Begun during the reign and
By order of Charles III

Around 1806, the restoration work of the Tower of Hercules was concluded; its structure had been consolidated and cleaned up, the access points to the lantern had been improved, the Roman structure had been covered, the lantern had been modernised and the illumination system had been renovated. In effect, an ancient monument had been overhauled so that it could continue to function as a lighthouse.

Portrait of Queen Isabel II

G. The Tower of Hercules in the Second Half of the 19th Century.

In 1847, the Tower of Hercules changed its old system of reflectors for a third generation catadioptric apparatus, which placed it at the vanguard of maritime illumination systems. The new lighting equipment served to train the students of the School of Lighthouse Keepers that was in operation from 1850 to 1853 under the management of the navigator, mechanic and watchmaker Agustín Antelo. During this short period of time, classes were given in the lighthouse keepers' houses that were located at the base of the hillock on which the Tower sat.

In 1858, Queen Isabella II, accompanied by her children, visited La Coruña and the lighthouse. For the occasion, according to Tettamancy[114], the interior of the building was "embellished", which consisted of covering the bonding of the interior walls with large canvases of patterned paper and fabric, the placing of barred partition walls on the ground floor and false ceilings to hide the vaults. The result was surprising because they managed to adorn the cold rooms and chambers of the lighthouse, which were turned into anodyne rooms of a courtesan taste.

Alphonse XII and three sisters.
Isabel Bernier

On the first floor the rooms used by the offices of the engineer were located, whilst on the second floor a small room was fitted

[114] Tettamancy Gastón, F., *La Torre de Hércules. Impresiones acerca de este antiquísimo faro bajo su aspecto histórico y arqueológico,* A Coruña, Imp. Roel, 1920, p. 157.

out for distinguished visitors, which, after the monarch's visit, came to be known as the "Queen's Room". On the third floor there was a storeroom for materials related to the lantern.

Obviously, beyond these uses, the interior chambers of the Tower could not be used for any other purposes, as its interior structure made it impossible to carry out any modifications as far as the distribution of space was concerned. For this reason, in 1861, a new project was begun; the construction of houses for the two lighthouse keepers and their families, which would be joined to the platform on the northern side. This building would have two floors and a surface area of 160 m^2, an interior patio and a well. It is probable that, when this work was carried out, the appearance of the platform was modified, substituting the metal railing for a stone ledge. The occasion was also taken advantage of to improve access to the Tower by building the road which would connect the lighthouse to Calle San Amaro. The work was directed by Faustino Domínguez Domínguez[115], who wanted to offer citizens and visitors to the lighthouse an area for relaxation and a promenade, which began at Campo da Estrada and ended at the foot of the Tower's hillock. The work was financed by the Provincial Authorities of A Coruña in 1865.

The Tower and the home of the lighthouse keepers. Early 20th century

In addition to this project, in 1868 several small reforms were undertaken, such as the repointing the upper platform and, in 1869, the renovation of the painted papers decorating the interior chambers.

Pavilion in the Universal Exposition in Paris, 1869

As well as these small superficial operations which altered the interior appearance of the rooms, the restoration work of Giannini gained supporters and his work on the Tower of Hercules came to be considered as one of the great acts of Spanish engineering of the era, a great technical display of modernity and respect for an ancient work. For this reason, the Government decided to present a model of the lighthouse to the Universal Exhibition in Paris in 1867 and in Vienna in 1873. Unfortunately this model has not been preserved although mention of it is made in newspapers of the time.

Old view of the Tower

H. The Tower of Hercules in the 20th Century.

In the last decades of the 19th century and the beginning of the 20th century, a series of improvements to the lighting system of the lighthouse were carried out. For example, the Sautter lamp was changed for one made by Létourneau, with the aim of making the beam stronger and more visible during the dark nights of Atlantic storms.

In addition to these technical matters, the Tower, following Giannini's restoration work, began to be known, valued and loved by the Galician people, who had a long maritime tradition and, from their origins, had maintained a close relationship with the rough sea that battered their coasts and took their sailors. In this context, the lighthouse lights the way that leads back to port; it is the image of the return home, of the happy nautical day and,

[115] Sánchez García, J. A., *Faustino Domínguez Domínguez y la arquitectura gallega del siglo XIX,* A Coruña, Diputación Provincial, 1997, 95.

therefore, it became a symbol, an icon which came to form part of the collective memory of our society. It was for this reason that, at the end of the 19th and the beginning of the 20th century, when Galicians emigrated in search of work and better opportunities, crossing the Atlantic and spreading out across Latin America, in what little baggage they took they carried the image of the Tower of Hercules, which started to shine strongly from the other side of the ocean thanks to the articles that Galicians published in magazines about emigration. There is not a single one that between 1890 and 1960 did not carry an article dedicated to the Tower in which homesickness and nostalgia are clear.

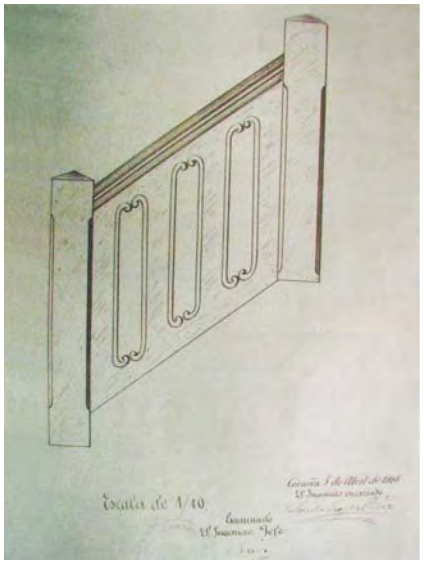
Taking advantage of this new assessment of the Tower, local intellectuals attempted to improve the state of the monument and the Dirección General de Obras Públicas (General Office of Public Works), the owner of the structure, listened to their opinions, which were channelled via the leadership. As a result of this collaboration, the engineer Salvador López Miño decided, in 1902, to improve the state of the inside of the Tower. Firstly, he removed the false ceilings and the wallpaper, with the aim of putting the original decoration on show once more. In addition, the masonry was repointed with cement and some unseemly elements were removed, such as the wooden handrail, which was replaced by another made of stone. In these reforms it was not possible to clean up the joints of the lighthouse's four facades due to the high costs which the scaffolding would have supposed.

In the year 1926, the Cooperativa Eléctrica Coruñesa carried out a major underground electrification project, which enabled an electrical supply to reach the Tower and led to the adaptation of the lamp to the new illumination system, which now had a range of 32 miles.

This physical and intellectual reassessment of the Tower of Hercules resulted in it being declared as a Historic-Artistic monument on 3rd June 1931 along with other significant buildings in the city[116].

As far as the surroundings of the Tower are concerned, between 1954 and 1956, new houses were built for the lighthouse keepers, which substituted the large house built in 1861, which has not been preserved. The new houses were located to the south-east of the lighthouse, as it was a more protected area, sheltered from the north-westerly storms. The building was joined to the platform but without standing out above the slope thus minimising its visual impact. Each house contained a living room, toilet, dining room, kitchen and pantry on the ground floor and bedrooms and a bathroom on the first floor. The tunnel linking the houses with the lighthouse via the platform was also built at this time, damaging the foundations of Roman times.

During the 1970's, the Tower of Hercules gained foreign exposure thanks to the research projects carried out by Hutter and Hauschild, both of whom have been mentioned many times in this section.



Design by Salvador López Miño for the new handrail made in 1906

Images from the Tower with the home of the lighthouse keepers built between 1954 and 1956

Images from the Tower with the home of the lighthouse keepers built between 1954 and 1956

[116] Decree of the Ministerio de Bellas Artes (Ministry of Fine Arts), published in the *Gaceta de Madrid*, on 4th June 1931.

On 12th May 1976, the Tower and the city of La Coruña experienced one of their most dramatic episodes of their recent history; the accident of the petrol tanker the Urquiola[117], which ran aground on some rocks in the northern channel of the entrance to the port and sank after spilling part of its 120,000 tonnes of crude oil, causing one of the most serious natural catastrophes ever experienced in Galicia. The Tower was a silent witness to the enormous column of smoke that engulfed the city for hours, as if it were a deep fog. The pollution spread along the estuaries of the Artabrian Gulf, destroying marine life and covering the beaches with tar.

The Urquiola oil tanker on fire in the Bay of A Coruña, 12th of May, 1976
Photo Foto Blanco

The Urquiola oil tanker on fire
In the Bay of A Coruña,
12th of May, 1976.

The rescue ship
Smith Lloyd 106 by the Urquiola
10 days after the accident
Photo Marina Civil

The Urquiola oil tanker on fire in the Bay of A Coruña, 12th of May, 1976

The Urquiola oil tanker on fire in the Bay of A Coruña, 12th of May, 1976. Photo Marina Civil

In March 1986, the Member of Parliament and writer María Victoria Fernández-España, with the backing of the Galician Centre in Madrid, made the first proposal for the Tower of Hercules to be declared a World Heritage Site. The idea was taken up again in 1989 when new incentive was given to the plans.

In 1988, the Ministry of Public Works, as the owner of the lighthouse as far as it being a maritime beacon is concerned, decided to close the lighthouse to visitors due to the terrible state that it was in and reached an agreement with the city council to renovate it.

On the occasion of the bicentenary of the rebuilding of the Tower of Hercules (1790-1990), the Spanish Ministry of Public Works and La Coruña's city council signed an agreement which had the aim of planning a whole series of activities oriented towards giving greater prestige to the monument. Throughout 1990, the Ministry of Public Works convened an open competition of Technical Assistance for the writing of a restoration project for the Tower and its surroundings, defending in the specifications the first ideas

En una pregunta al Gobierno

María Victoria Fernández-España pide que la Torre de Hércules sea declarada patrimonio universal

La Coruña (Redacción). «La célebre construcción de origen romano universalmente conocida como Torre de Hércules, símbolo indiscutible de la ciudad de La Coruña, es el faro en uso más antiguo del mundo y, como tal, viene siendo considerado tradicionalmente». Así comienza el preámbulo de las preguntas formuladas al Gobierno por la diputada coruñesa María Victoria Fernández-España y Fernández-Latorre sobre «Propuesta a la UNESCO para que la Torre de Hércules sea declarada Patrimonio Universal».

«Aunque su actual estructura —prosigue dicho preámbulo— responde a las reformas realizadas durante el reinado de Carlos III, sobre los planos del arquitecto Eustaquio Giannini, lo cierto es que, tras su sillería de planta cuadrada, se descubren cámaras, bóvedas y pasadizos romanos. Esta antigüedad multisecular hace que la Torre de Hércules, tan ligada a un sinfín de leyendas ancestrales, se configure como un singular y fiel testimonio de nuestra historia más remota».

«Recogiendo un sentir popular, el Centro Gallego de Madrid está reuniendo una exhaustiva documentación a fin de que este monumento coruñés, de un valor histórico indiscutible, tenga el honor de ser considerado como Patrimonio Universal por la UNESCO».

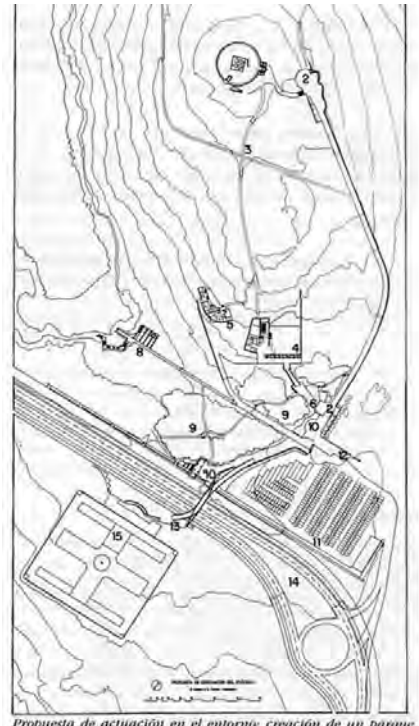
Teniendo en cuenta esta iniciativa, María Victoria Fernández-España pregunta al Gobierno qué medidas piensa tomar la Administración para apoyar esta iniciativa popular con respecto a la Torre de Hércules. «¿Entra dentro de los proyectos del Ministerio de Cultura —añade— el proponer a la UNESCO la declaración de la Torre de Hércules como Patrimonio Universal según ese sentir popular?. En todo caso, ¿cuál es su opinión al respecto?. ¿Qué criterios aplica la Administración de cara a potenciar los monumentos histórico-artísticos españoles más destacados a nivel internacional?. ¿Cuáles son sus planes en este sentido?».

First timed that it's asked for the declaration of the Tower as World Heritage Monument. March, 1986

[117] The petrol tanker Urquiola was built in the shipyards of Sestao (Vizcaya) and was launched on 2-6-1973. She was 276m in length and 39m in breadth and weighed 110,000 tonnes.

regarding the problems of how the building and its surroundings were treated, which were specified in the following chapters:

- Restoration of the exterior of the Tower of Hercules and a better use of the interior of the annexed buildings.
- Pathology of the stone wall and granite blocks and the proposed solution for their restoration.
- Definition and description of the carpentry to be used in doors and windows.
- Location and design of a Museum of Maritime Signals.
- Location of facilities and public conveniences, as well as garages for maritime signals technicians and users of the housing.
- Improvement of the immediate surroundings:
  - Signposting of the vehicle parking zone.
  - Pedestrian access zones, paving and illumination proposed.
  - Treatment of the existing roundabout as a transition area between the Tower and the surrounding area.
  - Planning study of the surrounding area.
  - Design of basic structural elements for the urban planning of the area.



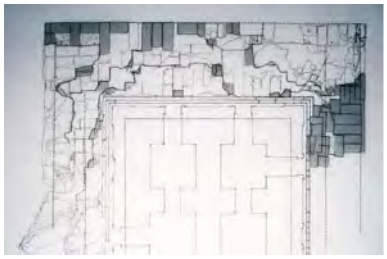
Propuesta de actuación en el entorno: creación de un parque arqueológico urbano y Museo de Señales Marítimas.

1.- Torre de Hércules. 2.- Acceso en Vehículo Eléctrico a la Torre. 3.- Acceso Peatonal a la Torre desde el Museo. 4.- Centro de Recepción y Museo de la Torre. 5.- Viviendas Técnicas de Señales Marítimas. 6.- Rampa acceso del Público al Museo. 7.- Carretera de uso restringido para Técnicos Señales Marítimas y personal Museo. 8.- Acceso a playa de las Lagoas, Mirador y Quiosco de bebidas. 9.- Zona Boscosa de Replantación. 10.- Entradas del Parque de la Torre de Hércules. 11.- Aparcamiento. 12.- Parada Autobús Municipal. 13.- Puente Peatonal. 14.- Paseo Marítimo de Orillamar. 15.- Edificio de la Cárcel. 16.- Tratamiento Escultórico de la Sirena y el Radio Faro.

Projected Works for the immediate surroundings of the Tower. 1990

The Tower hidden under the structure of the scaffold built for the restoration made between 1991 and1992. Photo P. Latorre

Works made under the platform of the Tower. 1991-1192. Photo P. Latorre



Plan of the platform excavated. Photo P. Latorre

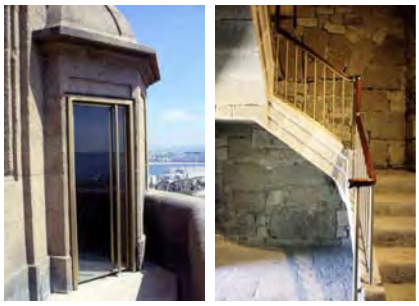
Excavations in the platform of the Tower. Photo P. Latorre

Excavation of the platform of the Tower. 1991-1992. Photo P. Latorre

Small shelter before the restoration made between 1991 and 1992. Photo P. Latorre

Small shelter after the restoration made between 1991 and 1992. Photo P. Latorre

The winner of the competition was an interdisciplinary team led by the architect Pablo Latorre González-Moro, which included the architect Leandro Cámara, who took charge of the study of the bronze work; the chemist-restorer José M. Cabrera, who concentrated on the analysis of the mortar; Germán Roibás, responsible for the photogrammetry and the archaeologist Luis Caballero Zoreda, who was responsible for the archaeological study and who was able to count on the continued support of his fellow architect Bello Diéguez of the Concejalía de Cultura del Ayuntamiento de A Coruña (Coruña city council's culture department), who carried out the excavations in the area and collaborated significantly by contributing historical data relating to the Tower of Hercules. Eduardo Toba, chief engineer of the Demarcación de Costas de Galicia was put in charge of supervising the work of all these professionals[118].



Replacement of windows, doors, and the handrail by others made in bronze. 1991-1992.
Photo P. Latorre

This team proceeded to collect a great deal of data in order to exhaustively document the building and its state of conservation by photgrammetrically drawing up the exterior, the chemical analysis of materials and their alterations and the reading of its decoration[119].

The doors of Hercules. Francisco Leiro, 1992.

The project was extremely ambitious and carried out an exemplary interdisciplinary work of restoration, as it allowed a diagnosis of the lighthouse and a study of its pathologies to be made in addition to improving the electronic installations, replacing the metalwork of the windows with safety glass and substituting the iron parts for bronze.

Furthermore, the cement pointing on the exterior was eliminated and replaced with lime mortar. Likewise, in the interior the cement mortar pointing was removed in order to show the Roman lime mortar. All of this was carried out under the direction of the chemist-restorer José María Cabrera.

The plaques commemorating the 18th century reforms situated above the entrances to the Tower were also restored and Francisco Leiro, a Galician sculptor of international renown, was commissioned to produce some doors decorated with reliefs alluding to the history and the legends surrounding the monument.

Detail of Hercules and Crunia. The doors of Hercules. Francisco Leiro, 1992

It was also at this time that the Tower's platform was cleaned and stripped of the buildings which disfigured its image, such as the lighthouse keepers' house, and the opportunity was taken to excavate a large area at the foot of the lighthouse. The interest of the findings justified the remains being put on display so that they could be seen and enjoyed by visitors to the Tower.

The archaeological dig was carried out by Bello Diéguez in two phases over the years 1990 and 1991. In the first phase some trial

Detail of Hercules and Geryon. The doors of Hercules. Francisco Leiro, 1992.

[118] Toba Blanco, E., "Restauración de la torre de Hércules. El faro y su entorno", in *Señales Marítimas. Revista de información del área de Señales Marítimas. Dirección General de Puertos y Costas,* nº 1 (1991), p. 4-6.

[119] Latorre, P. Cámara, L., Cabrera, J. M., Roibás, G., "Proyecto de restauración de la Torre de Hércules y su entorno", in *Señales Marítimas. Revista de información del área de Señales Marítimas. Dirección General de Puertos y Costas,* nº 1 (1991), p. 7-28.

excavations were made in the area of the plain and, in the second, an excavation was suggested in the area of the platform which would permit the exploration of the foundation system of the Roman lighthouse. During the work the existence of an exterior wall enclosing the access ramp and the system used to settle the building were confirmed. In the course of the work structures from the medieval period were discovered which confirmed the use of the lighthouse as a watchtower. Likewise, a fragment of cornice was found, which could have belonged to the top part of the Roman building, along with abundant fragments of gold-plated bronze, which could have belonged to a statue.

In the second phase of the project, directed by the engineer E. Toba Blanco, a small museum building was built on the platform itself, hidden in the slope, which gave access to the excavation and serves as an underground entrance to the monument via an old tunnel which, since 1956, was used by the lighthouse keepers to go from their homes to the lighthouse.

This same project foresaw the replanning of the immediate surroundings of the Tower, which consisted of the building of a parking area, signposting, the renovation of the roundabout in order to make it an area of transition between the Tower and the surrounding area, paving and illuminating of the pedestrian zone in order to distance vehicular traffic from the vicinity of the monument and a planning study for the surrounding area.

The creation of an archaeological park on the Tower's peninsula was also planned but this idea was later abandoned and, in its place, an open air museum, a green area for relaxation and leisure, something which was severely lacking in La Coruña, was built.

At the same time, with the aim of contributing towards the knowledge of the Tower, an effort was made to research and collect together all sources and documents related to the monument. This effort resulted in the exhibition and publication of the catalogue *Torre y Ciudad*[120] (Tower and City), coordinated by the archaeologist J. M. Bello Dieguez and the art historian A. Vigo Trasancos. In addition, the works of Hutter[121] y Hauschild[122] were published in the Spanish translation and the Instituto José Cornide de Estudios Locales published a large collection of sources relating to the Tower dating from medieval times to the present day[123].

The Tower after the restoration made in 1993

[120] *Ciudad y Torre. Roma y la Ilustración en La Coruña,* A Coruña, Ayuntamiento de A Coruña, 1991.

[121] Hutter, S: *Der römische Leuchtturm von La Coruña,* Main and Rhein, Ph. Von Zabern ed., 1973 (*El faro romano de La Coruña,* A Coruña, Ayuntamiento-Ed. O Castro, 1973),

[122] Hauschild, T., *El faro romano de La Coruña (Torre de Hércules). Problemas de su reconstrucción,* A Coruña, Ayuntamiento da A Coruña-Eds Do Castro, 1991,

[123] *Fuentes para el estudio de la Torre de Hércules. Conmemoración del Bicentenario de la reedificación dela torre de Hércules,* A Coruña, Instituto "José Cornide" de Estudios Coruñeses, A Coruña, 1991

When the restoration work was finished and everything seemed to be ready to reopen the Tower of Hercules to visitors, on the stormy morning of 3rd December 1992, the oil tanker the *Aegean Sea*[124] ran aground on the rocks of the inlet which form the peninsulas of Punta Eiras and Punta Herminia, that is to say at the foot of the lighthouse. Once again, misfortune had struck the city. The oil tanker was dragged by the violent Atlantic waves, which pushed it against the cliffs. The tanks of crude oil began to leak and the hull broke. For the second time, an enormous cloud of thick smoke engulfed the Tower and the city and the Artabrian Gulf was again covered in a black tide of death and desolation.

The Aegean Sea trapped in Punta Herminia
Photo Marina Civil

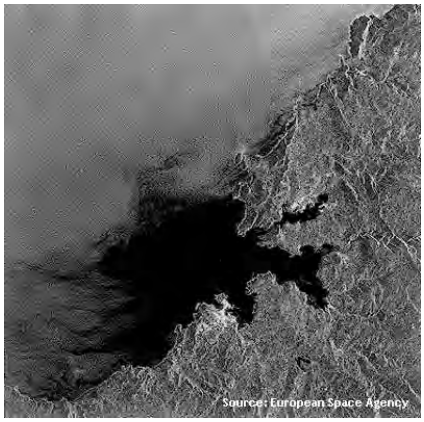
Accident of the Aegean Sea.
3rd of December, 1993.
Photo Marina Civil

Evacuation of the Aegean Sea's crew
Photo Marina Civil

The Aegean Sea trapped in Punta Herminia

Cloud of smoke after the explosion
of the oil tanks of the Aegean Sea.
3rd of December, 1993

The Aegean Sea's stern
trapped in Punta Herminia.
Photo E. Cabarcos



Spillage of oil in the Ártabro Gulf after the accident of the Aegean Sea

As a consequence of the smoke and ash, the Tower underwent a cleaning operation with the aim of recuperating the characteristic golden colour of its stonework, which had been hidden by the soot.

With the conclusion of the *Paseo Marítimo*, a coastal promenade running along the peninsula on which the city lies, the Tower of Hercules has been opened up even more to the city and today it constitutes a reference point not only for visitors to La Coruña but also for the residents of the city, who have made of the Tower and its surroundings an area for relaxation and enjoyment.

[124] An oil tanker of 114,037Dwt, 261.02 m in length and 40,67 m in breadth, which was carrying a load of 79,081 Tonnes of Brent Blend.